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The Lancet Commission on Global Mental Health and Sustainable Development

**THE LANCET COMMISSION ON GLOBAL MENTAL HEALTH &
SUSTAINABLE DEVELOPMENT**

Vikram Patel^{*}, Shekhar Saxena^{*}, Crick Lund^{**}, Graham Thornicroft^{**}, Florence Baingana[§],
Paul Bolton[§], Dan Chisholm[§], Pamela Y. Collins[§], Janice Cooper[§], Julian Eaton[§], Helen Herrman[§],
Mohammad M. Herzallah[§], Yueqin Huang[§], Mark Jordans[§], Arthur Kleinman[§],
Maria Elena Medina Mora[§], Ellen Morgan[§], Unaiza Niaz[§], Olayinka Omigbodun[§], Martin Prince[§],
Atif Rahman[§], Benedetto Saraceno[§], Bidyut K. Sarkar[§], Mary De Silva[§], Ilina Singh[§], Dan J. Stein[§],
Charlene Sunkel[§], Jorgen Unutzer[§].

^{*}Joint Editors

^{**}Co-Editors

[§]In alphabetical order

AUTHOR AFFILIATION

Vikram Patel, PhD; Pershing Square Professor of Global Health and Wellcome Trust Principal Research Fellow, Harvard Medical School, USA; Harvard TH Chan School of Public Health, USA; Sangath, India; and the Public Health Foundation of India (vikram_patel@hms.harvard.edu)

Shekhar Saxena, MD, Director, Department of Mental Health and Substance Abuse, World Health Organization, Geneva (saxenas@who.int)

Crick Lund, PhD; Professor of Global Mental Health and Development, Centre for Global Mental Health, Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King's College London; and Alan J Flisher Centre for Public Mental Health, Department of Psychiatry and Mental Health, University of Cape Town. (crick.lund@uct.ac.za)

Sir Graham Thornicroft, PhD; Professor of Community Psychiatry, Institute of Psychiatry, Psychology and Neuroscience, King's College London, UK (graham.thornicroft@kcl.ac.uk)

Florence Baingana, MSc; Mental Health Specialist, WHO Sierra Leone; Makerere University School of Public Health, Kampala (Kamayonza@gmail.com)

Paul Bolton, MB BS; Senior Scientist, Department of International Health and Department of Mental Health, Center for Humanitarian Health, Johns Hopkins University Bloomberg School of Public Health, Baltimore MD USA (pbolton1@jhu.edu)

Dan Chisholm, PhD; Programme Manager for Mental Health; WHO Regional Office for Europe, Copenhagen, Denmark (chisholmd@who.int)

Pamela Y. Collins, MD, MPH; Professor of Psychiatry & Behavioral Sciences and Professor of Global Health, University of Washington School of Medicine and School of Public Health, USA (pyc1@uw.edu)

Janice L. Cooper, PhD; Country Representative for Health, Liberia Mental Health Program, The Carter Center and Instructor, Emory University, USA, Monrovia, Liberia (janice.cooper@cartercenter.org)

Julian Eaton, MRCPsych; Senior Mental Health Advisor, CBM International; and Assistant Professor, Centre for Global Mental Health, London School of Hygiene and Tropical Medicine (julian.eaton@cbm.org)

Helen Herrman, Hon DMedSc, MD; Professor of Psychiatry, Orygen, The National Centre of Excellence in Youth Mental Health, and Centre for Youth Mental Health, The University of Melbourne, Australia; Director, World Health Organization Collaborating Centre in Mental Health, Melbourne, Australia; President, World Psychiatric Association (h.herrman@unimelb.edu.au)

Mohammad M. Herzallah, M.D., Ph.D.; Palestinian Neuroscience Initiative, Al-Quds University, Jerusalem, Palestine; Center for Molecular and Behavioral Neuroscience, Rutgers University, Newark, NJ, USA (mohammad.m.herzallah@gmail.com).

Yueqin Huang, PhD; Professor of Social Psychiatry, Peking University Sixth Hospital (Institute of Mental Health), Key Laboratory of Mental Health, Ministry of Health (Peking University), National Clinical Research Centre for Mental Disorders (Peking University Sixth Hospital). Vice-president, China Disabled Persons' Federation. President, Chinese Mental Health Journal, Beijing, China (huangyq@bjmu.edu.cn)

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Mark Jordans, PhD; Reader Child and Adolescent Mental Health in Humanitarian Settings, Center for Global Mental Health, King's College London, UK; and Director, Research and Development, War Child, the Netherlands (mark.jordans@kcl.ac.uk)

Arthur Kleinman, PhD; Esther and Sidney Rabb Professor, Department of Anthropology, Harvard University; Professor of Medical Anthropology and Psychiatry, Department of Global Health and Social Medicine, Harvard Medical School, USA. (kleinman@fas.harvard.edu)

Maria Elena Medina-Mora, PhD; General Director, National Institute on Psychiatry Ramon de la Fuente Muñiz (Mexico) (metmmora@gmail.com)

Ellen Morgan, MPhil; Program Officer, Templeton World Charity Foundation
(ellenmerymorgan@gmail.com)

Unaiza Niaz, MD, DPM, FRCPsych; Director, The Psychiatric Clinic & Stress Research Center, Pakistan; Adjunct Professor, University of Health Sciences, Pakistan; Faculty, Dow University of Health Sciences, Pakistan (drunaiza@gmail.com)

Olayinka Omigbodun, FMCPsych; Professor of Psychiatry, College of Medicine and Director, Centre for Child and Adolescent Mental Health, University of Ibadan, Nigeria(yomigbodun@comui.edu.ng)

Martin Prince, MD; Professor of Epidemiological Psychiatry, King's College London
(martin.prince@kcl.ac.uk)

Atif Rahman, PhD; Professor of Child Psychiatry, University of Liverpool, UK; Human Development Research Foundation, Pakistan (atif.rahman@liverpool.ac.uk)

Benedetto Saraceno, MD; Professor of Global Health, School of Medical Sciences, University Nova of Lisbon, Portugal; and the Lisbon Institute of Global Mental Health
(benedetto.saraceno@gmail.com)

Bidyut K Sarkar, PhD, MD; Project Director, PRIDE Project, Sangath, India; and the Public Health Foundation of India (bidyutk.sarkar@gmail.com)

Mary De Silva, PhD; Head of Population Health, The Wellcome Trust, UK
(m.desilva@wellcome.ac.uk)

Ilina Singh, PhD; Professor of Neuroscience & Society, University of Oxford, Department of Psychiatry and Wellcome Centre for Ethics and Humanities (ilina.singh@psych.ox.ac.uk)

Dan J. Stein, FRCPC, PhD; Professor and Chair, Department of Psychiatry & Mental Health, University of Cape Town, Groote Schuur Hospital and South African Medical Research Council Unit on Risk & Resilience in Mental Disorders (dan.stein@uct.ac.za)

Charlene Sunkel; Program Manager for Advocacy and Development, SA Federation for Mental Health; Principal Coordinator, Movement for Global Mental Health (charlene@safmh.org)

Jürgen Unützer, MD, MPH, MA; Professor and Chair, Department of Psychiatry and Behavioral Sciences, University of Washington; Founder, AIMS Center, USA (unutzer@uw.edu)

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EXECUTIVE SUMMARY

The Sustainable Development Goals (SDGs) represent an exponential advance from the Millennium Development Goals, with a substantially broader agenda affecting all nations and requiring co-ordinated global actions. The specific references to mental health and substance use as targets within the health Goal reflects this transformative vision. In 2007, a series of papers in the *Lancet* synthesised decades of inter-disciplinary research and practice in diverse contexts and called the global community to action to 'scale up services for people affected by mental disorders (including substance use disorders, self-harm and dementia), in particular in low and middle-income countries where the attainment of human rights to care and dignity were most seriously compromised. Ten years on, this Commission reassesses the global mental health agenda in the context of the SDGs.

Despite significant research advances showing what can be done to prevent and treat mental disorders and to promote mental health, translation into real-world impact has been painfully slow. The Global Burden of Disease attributable to mental disorders has risen inexorably in all countries in the context of major demographic, environmental and socio-political transitions. Human rights violations and abuses persist in many countries, with large numbers of people locked away in mental institutions or prisons or living on the streets, often without legal protection. The quality of mental health services are routinely worse than those for physical health. Government investment and development assistance for mental health remain pitifully small. Our collective failure to respond to this global health crisis results in monumental levels of lost human capabilities and avoidable suffering.

We have a historic opportunity to reframe the Global Mental Health agenda in light of the broader conceptualization of mental health and disorder envisioned in the SDGs. This opportunity is exemplified by the passage of the WHO's Comprehensive Mental Health Action Plan, the ratification of international Conventions protecting the rights of persons with psychosocial disabilities, the convergence of new evidence from diverse scientific disciplines on the nature and causes of mental health problems, the ubiquitous availability of digital technology, and the growing consensus amongst diverse stakeholders about the need for action and what this action should look like. This Commission grasps the opportunity presented by the SDGs to broaden the Global Mental Health agenda from a focus on reducing the treatment gap for people affected by mental disorders to the improvement of mental health for whole populations and reducing the contribution of mental disorders to the Global Burden of Disease. The Commission grounds this re-framed agenda on four foundational pillars.

First, mental health is a global public good, relevant to sustainable development in all countries, regardless of their socio-economic status, as all countries are 'developing' in the context of mental health. Second, mental health problems exist along a continuum from mild, time-limited distress to chronic, progressive and severely disabling conditions. The binary approach to diagnosing mental disorders, while continuing to have utility for clinical practice, fails to accurately reflect the diversity and complexity of mental health needs of individuals or populations. Third, the mental health of each individual is the unique product of social and environmental influences, in particular during the early life course, interacting with genetic, neuro-developmental and psychological processes, affecting biological pathways in the brain. Fourth, mental health is a fundamental human right for all people, necessitating a rights-based approach to the welfare of people with mental disorders, to those who face vulnerabilities or risk factors associated with poor mental health, and to enable an environment which promotes mental health for all.

Realising this reframed agenda will require six key actions. The Commission fully recognises the diversity of settings *across* countries as well as *within* countries and suggests that the starting point for staged implementation of its recommendations will differ according to particular settings and the likely availability of human and financial resources. First, mental health services must be scaled up as an essential component of universal health coverage and should be fully integrated in the global response to other health priorities, including non-communicable diseases, maternal and child

health, and HIV/AIDS. Equally, the physical health of people with severe mental disorders must be emphasized in such integrated care. Second, barriers and threats to mental health must be assertively addressed. These include the lack of awareness of the value of mental health in social and economic development, the lack of attention to its promotion and protection across sectors, the severe demand side constraints for mental health care posed by stigma and discrimination, and the increasing risks and threats to mental health posed by global challenges such as climate change and growing inequality. Third, mental health must be protected by public policies and developmental efforts and these inter-sectoral actions must be led by each country's top leadership to engage a wide range of stakeholders within and beyond health, notably through the sectors of education, workplace, social welfare, gender empowerment, child and youth services, criminal justice and development and humanitarian assistance. These interventions must target social and environmental determinants that have a critical influence, positive or negative, on mental health at developmentally sensitive periods, particularly in childhood and adolescence, for the promotion of mental health and the prevention of mental disorders. Fourth, new opportunities must be enthusiastically embraced, in particular those offered by the innovative use of trained non-specialist human resources and digital technologies to deliver a range of mental health interventions, and the mobilization of the voices of people with the lived experience of mental disorders. Fifth, substantial additional investments must be urgently made as the economic and health case for increased investments in mental health is strong. While additional resources are essential, there is also an immediate opportunity for more efficient and effective use of existing resources, for example through the redistribution of mental health budgets from large hospitals to district hospital and community-based local services, the introduction of early interventions for emerging mental disorders, and re-allocating budgets for other health priorities to promote integration of mental health care in established platforms of delivery. Finally, investments in research and innovation must grow and harness novel understandings and approaches from diverse disciplines such as genomics, neuroscience, health services research, clinical sciences and social sciences, both for implementation research on scaling up mental health interventions, and for discovery research to advance understanding of causes and mechanisms of mental disorders and develop more effective interventions to prevent and treat them.

This Commission proposes a broad and integrated set of indicators to monitor progress for mental health in the SDG era, spanning the social determinants of mental health, the mental health status of populations, and the inputs into and outcomes of mental health services and systems. We call for the establishment of a Partnership to realize the opportunity to transform mental health globally, with the goals of the mobilization, disbursement, enabling the utilization and monitoring of funds, and evaluating the impact of the actions proposed by the Commission. Such a Partnership must include engagement of UN and development agencies, academic institutions and NGOs with appropriate expertise, the private sector, civil society organizations representing the voices of persons with a lived experience and their family members, and policy makers from national and international agencies.

This Commission reframes mental health by bringing together knowledge drawn from diverse scientific perspectives and real-world experiences to offer a fresh, ambitious and unified vision for action. Our conceptualization is aligned with, and will give further impetus to the central SDG principle to "leave no one behind" and to the notions of human capabilities and capital. We believe both in the inherent right of every person to mental health, and that mental health is a means of facilitating sustainable socio-economic development, more complete health, and a more equitable world. Urgent action to fully implement our recommendations will not only hasten the attainment of the mental health targets of the SDGs, but indeed many of the other SDGs as well.

SECTION 1: THE JOURNEY SO FAR

In 2015, all nations united around a shared mission of achieving the Sustainable Development Goals (SDGs) (<http://www.un.org/sustainabledevelopment/sustainable-development-goals/>). This was an exponential advance from the Millennium Development Goals (MDG) which it replaced, both in its aspiration to encompass a substantially broader agenda and through its explicit recognition that these were global concerns, affecting all nations, and requiring global actions, to address them. One notable example of this transformative vision was the recognition that health burdens went beyond the MDG focus on a selection of infectious diseases and maternal and child health which were leading causes of the burden of disease in low income countries. Non-communicable diseases, mental health and substance abuse received recognition, and targets and indicators related to these were specified (Panel 1). With this, decades of science and advocacy for mental health to achieve its rightful place in the global development agenda had finally borne fruit.

[Panel 1 here: United Nations Sustainable Development Goals (SDGs) specifically pertaining to mental health]

Global Mental Health has played a key role in the inclusion of mental health in the SDGs. Global health has been variously defined as a field which “places a priority on improving health and achieving equity in health for all people worldwide”.¹ In line with its parent discipline, the focus of Global Mental Health has been on reducing mental health disparities between and within nations.² The field of Global Mental Health is the product of decades of inter-disciplinary research and practice in diverse trans-national contexts. A series of publications from the early 1990s (Figure 1), led to a ‘call to action’ in this journal in 2007 to ‘scale up services for people affected by mental disorders built on the twin foundations of cost-effective interventions and respect for human rights’ in all countries of the world, and in particular in low and middle income countries (LMICs) where the realization of these rights was most seriously compromised.³

[Figure 1 here: Milestones on the road to Mental Health and Sustainable Development]

The goal of this Commission is to reframe global mental health within the new paradigm of sustainable development. We propose a significant expansion of the agenda of Global Mental Health, building on its achievements while also recognizing the limitations of its extant principles and strategies. This Commission attempts to reframe the existing agenda of Global Mental Health in a number of ways. First, our scope is global, i.e. we address concerns which are relevant in all countries; when it comes to mental health all countries are ‘developing’ to some degree for there are vast inequities in the distribution of and access to mental health resources not only between but also within countries. Instead of the orthodox classification of countries according to their income status, we adopt a resource based classification of contexts in our thinking. We advocate for countries to utilise available planning tools to set their own targets for inputs (such as budgets, staff and beds), processes (such as numbers of skilled providers) and outcomes (such as improved mental health).⁴ Second, from a nosological perspective, we acknowledge that the binary approach to the diagnosis of mental disorders, while of utility to health professionals, does not adequately reflect the dimensional nature of mental health. We propose a hybrid staged model in its place and seek to show how such an approach is not only of utility to providers across the spectrum from community health workers to mental health professionals, but also more accurately reflects the true distribution of symptoms of mental ill-health, is more attuned to the lived experience of persons with mental disorders, and optimizes the rational allocation of resources for interventions. Third, from an aetiological perspective, we emphasize a convergent model of mental health, recognizing the complex interplay of psychosocial, biological and genetic factors, acting across the life course, but in particular during sensitive developmental periods of childhood and adolescence. Fourth, we call for the actualisation of mental health as a fundamental human right for all people with a specific focus on those who face the gravest danger of their rights being denied, notably people living in institutions (including prisons), those who are homeless, and those such as refugees who are affected by severe adversities such as conflict.

It is in this context of reframing mental health that this Commission seeks to emphasize the existing Global Mental Health goal of reducing the treatment gap or, more accurately, the “care” gap,⁵ for people affected by mental disorders. We also seek to reduce the burden of mental disorders by addressing the quality gap (i.e. the quality of the care received by persons with mental disorders) and the prevention gap (i.e. the coverage of interventions which target the risk factors for mental disorders). This goal can only be achieved through the combined actions of the prevention of mental disorders alongside the effective clinical and social care of people with mental disorders. We include dementia and suicide within the scope of our Commission because the primary focus of care for dementia is related to its impact on the mental health of the affected person (and care-givers) while suicide is very often the consequence of mental disorders.

Before we endeavour to chart out the principles for reframing Global Mental Health and its implications for policy and practice, it is pertinent to briefly review the history of this field of and its impact and limitations.

The History

The initial perspective on Global Mental Health was characterized by two distinctive epistemologies: the “emic” approach of social anthropologists and cultural psychiatrists who analyzed mental disorders as shaped by social and cultural forces; and the “etic” approach of clinicians and epidemiologists who analyzed mental disorders as if they were biologically no different from other medical disorders, and could therefore be conceived as universal conditions. From the 1970s onwards, a new generation of inter-disciplinary collaboration, including the work of scholars whose own expertise bridges the divide, led to the emergence of a “new cross-cultural psychiatry”^{6,7} which recognized the key contributions, and complementarities, of both schools and promoted the study of mental disorders in diverse populations with balanced acknowledgement of their universal features and the crucial contribution of contextual and cultural influences. This body of work led to four transformational shifts which presaged the emergence of Global Mental Health.

The first shift concerned the “what”, viz., the nature of mental disorders and, consequently, the content of interventions. The biomedical approach was progressively considered just one among other dimensions of mental health. In an historic article, George Engel coined the expression ‘biopsychosocial’.⁸ Subsequent contributions demonstrated the multifaceted nature of etiology and treatment of mental disorders, leading to the conclusion that mental disorders should not be considered as conditions of persons always in transaction with social and environmental contexts. The concept of “social suffering” encompassing the whole range of human problems that result from political, economic, and institutional power, emphasized the need for structural and social interventions as critical components of a comprehensive response to address mental health problems.⁹ Simultaneously, substance use disorders were conceptualized as complex chronic health conditions with a relapsing nature, challenging their conceptualization as moral failure or a criminal behavior, implying a transformation from a criminal justice approach to a public health approach.¹⁰

The second shift concerned “where” mental health care is provided and was represented by the progressive shift from “institutional care” to “community care”, a process sometimes referred to as ‘de-institutionalization’. Due to a reframing of the ethical, social and administrative considerations related to mental health care, the availability of new drugs and the growth of the human rights movement, the number of psychiatric beds started declining from the 1950s in many high-income countries. Some clinical and rehabilitation activities were moved outside hospitals, psychiatric wards were created in general hospitals and mental health was integrated in primary health care, entirely replacing the psychiatric hospitals in some countries such as in Italy¹¹ or moved into the community as in the remarkable Aro Village System in Nigeria.¹²

The third shift, concerns “who” is the provider. Mental health promotion, prevention, treatment of and recovery from mental disorders were no longer the prerogative of a single group of experts, a

role historically played by psychiatrists. Instead a diversity of persons have become active in this arena, - from a range of mental health professionals to a range of non-specialist providers such as community health workers, teachers, law enforcement officers. and, as exemplified by the fourth shift, users and care-givers. In short, mental health was considered everybody's business.¹³

The fourth shift is exemplified by the expression "nothing about us without us". This has been much more than a slogan borrowed from disability activism by persons with the lived experience of mental disorders claiming their empowerment; it is becoming a fundamental, rights-based component of the ethos of mental health care provision and research,¹⁴ from championing the engagement of users in service delivery to recognition of the recovery approach, which places the wishes and expressed needs of persons affected by mental disorders at the heart of mental health care.¹⁵

The scientific foundations

These shifts have been buttressed by evidence in four domains which led to the formal emergence of the discipline of Global Mental Health.

The social determinants of mental disorders: There was Emerging research has provided consistent evidence of the strong association between social disadvantage and poor mental health. Poverty, childhood adversity, and violence emerged as key risk factors for the onset and persistence of mental disorders which, in turn, were associated with loss of income due to poorer educational attainment, lower employment opportunities and lower productivity.¹⁶ These complex and multi-directional pathways led to a vicious cycle of disadvantage and mental disorders and, ultimately, suggest a critical role for mental disorders in the inter-generational transmission of poverty.

The Global Burden of Disease attributable to mental disorders: A transformative methodological breakthrough occurred in the early 1990s with measurement of the global burden of disease in Disability Adjusted Life Years (DALYs) – for the first time allowing for comparison of the burden of mental disorders with other health conditions, by estimating their contribution to both years of life lived with disability and to premature mortality. The Global Burden of Disease attributable to mental disorders (primarily through years lived with disability), led by depressive and alcohol use disorders, was large at the time of the first report in 1996, and has shown a steady rise in the subsequent two decades, in part due to demographic and epidemiological transitions (Figures 2 and 3)¹⁷. Even this high burden is likely to be an under-estimate due to the non-inclusion of dementia and suicide in the burden attributed to mental disorders, and high levels of premature mortality associated with mental disorders.¹⁸ For example, although less than a million deaths are attributed to mental disorders, natural history models showed that about 13 million excess deaths occurred in 2010 in people with mental disorders.¹⁹

[Figures 2 here: The rising Burden of Mental & substance use disorders; Alzheimer's Disease and other Dementias; and Suicide (Self-harm) by Socio-Demographic Index (SDI) Groups]

[Figure 3 here: The Global Burden of Mental & Substance Use Disorders Alzheimer's Disease and other Dementias; and Suicide (Self-harm) (in DALYs) across the life course]

Inadequate investments in mental health care: The allocations for mental health care in national health budgets (and, similarly, the equally small investments in mental health research in health research budgets), were disproportionate to the burden of mental health conditions in all countries. Even this relatively small investment (less than 1% in low income countries)²⁰ was largely spent on mental hospitals, large stand-alone institutions cordoned off from the community, many of which were built decades ago. Thus, the funding allocated for community oriented, person-centred care with a focus on integration in routine health and social care platforms, was negligible. (Figure S1:

Some key indicators for Global Mental Health & Sustainable Development by income category of countries)

The near-absence of access to quality care globally: A consequence of this low investment was the very large treatment and care gaps for people with mental disorders. The World Mental Health Surveys with 84,850 community adult respondents in 17 countries observed that the proportion of people with an anxiety, mood or substance use disorder using any mental health services in the prior 12 months ranged from 1.6% in Nigeria to 17.9% in the United States.²¹ Further, the quality of care received by many people, in particular those affected by severe mental disorders and disabilities, was poor in all countries and was often associated with abuses of their fundamental human rights, for example through the experience of forced restraints, physical and sexual violence, and torture (Figure 4).²²

[Figure 4 here: Torture and incarceration of people with mental disorders]

The impact

This rich inter-disciplinary heritage laid the foundation for the landmark 2007 Lancet series on Global Mental Health. The conclusion arrived at by 38 authors of this series of articles was that the high burden and unmet needs for care constituted a global health crisis. After much deliberation on what might be the most urgent, clear and specific 'call to action' for the global health community, the authors chose to focus on the needs of those individuals affected by a mental disorder, calling for actions to reduce the treatment gap by scaling up the coverage of services for mental disorders in all countries, but especially in LMIC.³

The years following the publication of the Lancet series witnessed a tangible increase in attention to the treatment gap in LMIC as evidenced by the increase in development assistance for mental health which more than doubled in absolute dollars in the years immediately after 2007.²³ The WHO launched its flagship *Mental Health Gap Action Programme* (mhGAP) to scale up care for mental, neurological and substance use disorders in LMIC²⁴ and developed a series of seminal publications which provide guidance to health practitioners in non-specialist settings on treatments for these disorders, track the status of mental health systems at the country level,²⁵ and establish standards of care.²⁶ The Comprehensive WHO Mental Health Action Plan (2013-2020) agreed by all nations of the world, set out a road-map for achievement of a broad range of mental health related targets.²⁷ The Disease Control Priorities Network published its recommendations showing governments and development agencies which interventions should be scaled up through diverse platforms from the community to specialist care, ultimately forming the mental and neurological health component of the package of interventions for Universal Health Coverage.²⁸ Notably, both these reports took a much broader view of mental health, emphasizing the continuum from the promotion of mental health and prevention of mental disorders, to treatment, long-term care and recovery and inclusion of persons with mental disorders.

Concurrently, reform initiatives in specific countries influenced and promoted a public health approach to mental health care. In Brazil, the government sought to correct decades of emphasis on psychiatric institutions with a more balanced provision of medical and psychosocial interventions in community based settings.²⁹ India passed a landmark Mental Health Care Bill in 2017 entitling persons with mental disorders to access comprehensive medical and social care services in community settings.³⁰ Ghana passed a revised Mental Health Act in 2012, after years of advocacy by a coalition of the mental health community, NGOs, the Ministry of Health and WHO. China's commitment to mental health care is exemplified by its new mental health law (2012) and massive expansion of coverage of care through its 686 program.³¹ England launched a national program for improving access to evidence based psychological treatments.³² Countries affected by conflict or natural disasters, such as Sri Lanka and Rwanda, used the crisis-response to the mental health care needs of traumatised and displaced populations as the foundations for a sustainable mental health care system.³³ Global age-standardized suicide rates have fallen by 24% in the

period from 1990 to 2016 (China alone witnessed fall of more than 50%), the precise reasons for which remain uncertain.¹⁷

In 2011, the Grand Challenges in Global Mental Health initiative, led by the US National Institute of Mental Health (NIMH), provided implementation research questions as the priorities to reduce the treatment gap for mental disorders (Panel 2).³⁴ This publication was followed by a slew of new research initiatives including nearly US\$60 million between 2011 and 2016 by NIMH to support research and training in Global Mental Health as well as a series of 16 international “hubs” for research on task-sharing and scaling up mental health interventions. In addition, Grand Challenges Canada invested \$42 million CAD to support 85 projects addressing some of these priorities in 31 LMIC. In 2017, the Global Alliance for Chronic Diseases consortium of funding agencies selected Global Mental Health for its annual call, while the Research Councils in the UK invited bids for Global Mental Health research programs, promoting a similar implementation science agenda.

[Panel 2: The five leading grand challenges for global mental health]

Civil society began to partner with mental health professionals to promote a shared vision, the most notable example being the Movement for Global Mental Health, launched in 2008, as a virtual global alliance. By March 2018, the Movement comprised 220 member institutions representing diverse stakeholders, from academics through to persons affected by mental disorders.³⁴ The Movement has been led, since 2013, by persons affected by mental disorders (the current leader is an author of this Commission). Its fifth Summit, in Johannesburg in February 2018, witnessed the launch of a Global Mental Health Peer Network. In several countries, prominent individuals have disclosed their personal accounts of living with mental disorder, indicating the growing recognition of this form of human suffering. The field of Global Mental Health has become a respected discipline in its own right, with academic programs and centres in Universities around the world, specialist journals and books on the subject, and an annual calendar of scientific events; not surprisingly, the discipline has been described as having ‘come of age’.²

The threats

Despite these tangible impacts, there are several indications which suggest that the journey towards justice for people with mental disorders globally has only just begun and potential threats remain..

First, there is very little evidence of substantial impact of reductions in the treatment gap. The recent national surveys from India and China, home to one-third of humanity, report that more than 80% of persons with any mental or substance use disorder had not sought treatment.^{35,36} Even when treatment is sought, its quality is poor: the World Mental Health Surveys reported that just 1 in 5 people with depressive disorder in high-income and 1 in 27 in low-/lower-middle-income countries received minimally adequate treatment.³⁷ Recovery oriented community mental health services remain inaccessible to the overwhelming majority of the global population and in-patient care, including both emergency care and long-term social care, continues to be dominated by large institutions or prisons. Tens of thousands of people with mental disorders are chained in their own homes, or in prayer camps and traditional healing facilities. Poorly planned implementation of de-institutionalization typically leads to premature mortality and discharged patients being arrested and put in prison. A recent tragic case occurred in South Africa in 2016 when the Gauteng Department of Health took a decision to cease funding for a large 2000-bed facility and allowed the discharge of vulnerable people with psychosocial disability into un-licensed community residential facilities, leading to the death of over 140 people.³⁸

Second, the financial resources allocated for mental health both in spending by governments as well as in development assistance for mental health which sets the health policy for many of the poorest countries, remain alarmingly low. Despite showing absolute increases in funding since 2007, development assistance for mental health has never exceeded 1% of the global development assistance for health²³ and was a pitiful 0.85US\$ per Disability-Adjusted Life Year (DALY) in 2013 compared with 144US\$ for HIV/AIDS and 48\$ for TB and malaria.³⁹ The

allocations for child and adolescent mental health, arguably the most important developmental phase in the context of prevention, is a paltry 0.1% of total development assistance for health.⁴⁰ The economic consequences of this low investment are staggering with one estimate reporting a loss of 16 trillion US\$ to the global economy due to mental disorders (in the period 2010-2030, driven in part by the early age of onset and loss of productivity across the life course).⁴¹

Third, pharmacological and other clinical interventions for mental disorders, while potentially and actually transformative in reducing individual suffering and disability and comparable or superior to those for other chronic conditions,⁴² may have limited impact on the population level burden of mental disorders. A recent analysis of data from 1990 to 2015 from four high-resourced countries (Australia, Canada, England and the US) show that the observed prevalence of mood and anxiety disorders and symptoms has not decreased, despite substantial increases in the provision of treatment, particularly antidepressants, and no increase in risk factors. The authors called for attention to the “quality gap” and “prevention gap”, including investments in early interventions.⁴³ Compounding this limitation, advocacy for mental health has been hampered by the reliance on input indicators and, to a more limited extent due to paucity of data, on process indicators rather than outcome indicators (e.g. improved mental health).

Fourth, multiple transitions facing the global population act as drivers for poor mental health, notably the increase in some social determinants, such as pandemics, conflict and displacement, increased global income inequality, growing economic and political uncertainties, rapid urbanization and environmental threats such as increased natural disasters associated with climate change.^{44,45} Major demographic and epidemiological transitions are in progress globally, characterised by both a growth in young populations in LMIC and a steadily ageing global population bringing with it a rising tide of people entering the risk period for the onset of mental disorders, in particular psychoses, substance use and mood disorders (which have their onset in young adulthood) and dementia (which has its onset in older age). While some social transitions are likely to be salutary for mental health, for example the reductions in the proportion of the population living in absolute poverty, the increase in other adverse social determinants such as income inequality coupled with demographic transitions are likely to lead to an overall increase in those at risk of mental disorders, as is already evident from the dramatically increasing contribution of mental disorders to the Global Burden of Disease.

Fifth, the biomedical framing of the treatment gap has attracted criticism from some scholars and activists championing a cultural perspective and representing persons with the lived experience of mental disorders. These voices fear that a biomedical emphasis will take priority over indigenous traditions of healing and recovery, medicalize social suffering, and promote a ‘western’ psychiatric framework dominated by pharmaceutical interventions.⁴⁶ A fresh area of tension has become visible between those who believe that the Convention of the Rights of Persons with Disabilities (CRPD) enshrines the right to autonomy in decision making about treatment to all persons with mental disorders (or psychosocial disabilities, the term used in the CRPD) in all circumstances, and those who believe that mental health laws lay down appropriate guidelines which allow for substituted decision making in the best interests of the individual, when the mental disorder profoundly interferes with the person’s capacity to make informed decisions.⁴⁷

Finally, advocacy for global mental health has been threatened by fragmentation resulting from diverse constituencies and scientific perspectives. From the happiness agenda promoted by some economists, to specialist care for mental disorders promoted by clinical practitioners, to fighting discrimination promoted by civil society activists, to mapping the human brain promoted by neuroscientists - each offers a distinct perspective and direction to pursue. An example is the concerns of mental health professionals that they may lose professional identity and power, or that clinical standards might be compromised through the adoption of task sharing models of care. This leads to divergent or even contradictory messages cast to Governments by the diverse stakeholders concerned with mental health, resulting in the lack of a coherent case to prioritize

mental health. Compounding this fragmentation within the field, there has been and perhaps still is, the risk of Global Mental Health becoming yet another silo, unlinked to other momentous initiatives in global health, such as Every Woman Every Child, Global Accelerated Action for the Health of Adolescents (AA-HA!) or Universal Health Coverage. This is exemplified by the lack of adequate engagement with mental health in the training and practice of general health care professionals or the agenda of global health policy and funding on the one hand, and the lack of engagement with the global health and development agenda in the training and practice of mental health professionals on the other.

Mental health in the era of Sustainable Development

Ten years on from the first Lancet series which helped propel mental health into the global health spotlight, it is time to consider where the field should head in the next decade and beyond. While it is plainly evident that the existing agenda to improve the detection of mental disorders and access to care is still very far from being attained and remains a priority, even its attainment alone is unlikely to lead to a substantial impact on the SDG targets or reducing the global burden of mental disorders unless the agenda is significantly expanded to address the ‘prevention’ gap and the ‘quality’ gap in mental health care.⁴³ This Commission proposes a broadening of the scope of Global Mental Health, building on three guiding principles for reframing mental health and advocating four innovative strategies to scale up evidence based interventions to achieve three objectives: the prevention of mental disorders; the treatment and care of mental disorders; and enabling recovery and social inclusion of persons with mental disorders (Panel 3). Our final section draws together the evidence to demonstrate how countries, communities and citizens can enact these strategies, in particular addressing the pervasive structural and attitudinal barriers to addressing Global Mental Health priorities. We build on the Grand Challenges in Global Mental Health³⁴ to propose the directions for future research and present a preliminary blue-print of the range of indicators capturing the determinants of mental health, the delivery of mental health interventions, and their impact on populations, which may be used to monitor the progress of countries in achieving the SDG target and indicators for mental health.

[Panel 3: A fresh perspective on global mental health and sustainable development]

The global community now has an historic opportunity to reframe the Global Mental Health agenda in light of a broader conceptualization of mental health and disorder, and to position this agenda as an integral element of the SDGs. These opportunities are exemplified by the passage of the WHO’s Comprehensive Mental Health Action Plan, the explicit acknowledgement of mental health as a global development issue in the landmark summit hosted jointly by the World Bank and WHO in April 2016, the inclusion of mental health in the agenda of the WHO’s High Level Commission on Non-Communicable Diseases,⁴⁸ the potential for a grand convergence across disciplines, both at the level of etiology as well as practice, and the growing consensus and convergence of partners and stakeholders. This Commission seeks to build on these unique opportunities to pave the way for a reframing of mental health by bringing together knowledge and evidence drawn from diverse disciplinary perspectives and offer a fresh, ambitious and unified vision for action. Our goal is to ensure that the vision of mental health as a global public good, central to the concept of human capital,⁴⁹ is realized, not only to accelerate the attainment of the mental health specific goals of the SDGs but of many other SDGs as well.

SECTION 2: REFRAMING MENTAL HEALTH

Section 2 presents three guiding principles that underpin this report. The first principle is the expansion of mental health from the existing focus on clinically defined ‘mental disorders’ to a broader *dimensional approach to mental health*. This approach leads to the next guiding principle, which introduces a ‘*convergence*’ model of mental health – aligning evidence from diverse fields

including developmental, social and biological determinants of mental health. The final principle upholds mental health as a universal and basic human right. From a social justice perspective, this emphasizes the rights of populations in vulnerable circumstances, who are at greater risk to their mental health (such as those who are fleeing conflict), as well as the rights of people already living with mental disorders.

Dimensional Approach to Mental Health

Mental health and mental disorders have been understood in a wide variety of ways by different historical and cultural traditions, and by different academic disciplines. Recent trends in global health and development, including those prompted by the SDGs, necessitate a reflection on the conceptual basis of mental health, wellbeing, mental disorder, and psychosocial disabilities. In this section, we aim to describe the nature and dimensions of mental health and mental disorder, to provide a useful framework for debate, research and action. This task entails expanding the vision of global mental health in three ways. First, balancing the focus on treatment, rehabilitation, care and recovery with an equal emphasis on the promotion of mental health and the prevention of mental disorder, particularly interventions early in the life course. Second, adopting a staging approach to the identification and classification of mental disorder, recognising the potential benefits of intervention at each stage. Third, embracing diverse global experiences of mental health and disorder, so as to tailor the range of interventions more appropriately, and promote mutual learning. We begin by laying out key terms that are used to define the scope of mental health (Panel 4).

[Panel 4 here. Definitions of key terms]

Mental health and wellbeing

Mental health can be understood as an asset or a resource that enables positive states of wellbeing and provides the capability for people to achieve their full potential. Consistent with the WHO definition of health, mental health therefore does not simply imply an absence of illness. What then is the relationship between mental health and mental disorder? Clearly, the two exist on a continuum: gains in mental health predict decline in mental disorders at a population level over time.^{50,51} However, this is not a linear relationship: an individual may have symptoms of a mental disorder and associated distress and disability but this does not mean that person cannot also enjoy a certain degree of mental health which is consistent with their expectations of being satisfied with their life and achieving their potential.⁵²

Wellbeing is a positive construct which incorporates two related ideas: subjective satisfaction with life and positive affect or mood (the hedonic tradition), and meaningful functioning and human development (Aristotle's eudaimonic tradition). The movement promoting wellbeing and happiness as a core indicator of human and national development,⁵³ asserts the relevance of both dimensions, though with varying emphases. Some metrics, for example of 'national wellbeing',⁵⁴ attempt to capture population level determinants of wellbeing, such as mental and physical health and longevity, but also a sense of economic and social security, productivity and social relationships. A related concept is subjective quality of life, that compares people's perceptions of their life in relation to their goals and expectations. There remain several ongoing challenges with measuring well-being cross-culturally, not least due to diverse social and cultural norms regarding perceived happiness and satisfaction with life.

Pertinent to mental health in this context is Amartya Sen's view that development can only be achieved when people have real freedoms in their social contexts.⁵⁵ According to this view, having practical access to the things that a person values will lead to greater wellbeing (a "good life"). But exposure to severe social or economic adversity undermines the fundamental mental health capabilities that make real freedom possible. Furthermore, wellbeing is restricted for people with mental disorders by a system that tends to discriminate against them. Social contexts underlie much of the distress people experience, including structural inequities which seem to have a particularly negative effect on mental health and wellbeing.⁵⁶ This 'social suffering' is an important

counterpoint to the tendency to focus on internal causation, and provides a valuable perspective on the limited role of traditional curative health services in overall population wellbeing.⁹

It is an axiom of public health that the majority of population benefit is to be gained from promoting factors that facilitate good health, and avoiding causes of ill health, rather than solely treating conditions once they are present.⁵⁷ Global mental health has much to gain by supporting sectors engaged in human development to incorporate evidence-based interventions that can prevent mental disorders and enhance the mental health and wellbeing of populations. An expanded agenda for mental health is therefore required, which ranges from promotion and prevention (the latter two which overlap considerably, in particular when considering primary prevention) to treatment and rehabilitation, mapping the dimensions from good to poor mental health, and from risk factors to the presence of mental disorders and disabilities. This allows greater clarity in developing effective policy interventions for mental health, and in guiding investment and research. It involves improving mental health, reducing and/ or delaying the incidence of mental disorders, shortening episodes of illness, and maximising participation and quality of life throughout the illness course.

A staging approach for mental disorders

The importance of a dimensional approach to mental health leads logically to a consideration of how we describe and classify mental disorders. Classification systems, like the International Classification of Disease (ICD) and Diagnostic and Statistical Manual of Mental Disorders (DSM), have tended to reify syndromes (similar sets of symptoms and observations, or 'signs') by categorising them as discrete 'disorders' in a similar way to physical illnesses. Using categorical terminology is relatively simple to understand and apply, in particular by policy makers and clinicians. Various methods have been used to add nuance to binary (presence or absence) categories in these systems, for example the Multi-Axial approach of DSM-IV, which was replaced by a hybrid dimensional-categorical approach in parts of DSM-5. WHO's proposed diagnostic guidelines for mental and behavioural disorders in the Eleventh Revision of the International Classification of Diseases and Related Health Problems (ICD-11) recommends severity ratings and other qualifiers, while at the same time retaining its clinical utility as a categorical diagnostic classification system.⁵⁸

Despite these relative improvements in nosology, the limitations of diagnosis must be recognised. Diagnosis can at times lead to unhelpful labelling, diminishing the agency of the affected individual, promoting a reductionist perspective, and over-simplifying and under-valuing complexities of personal circumstances.⁵⁹ The diverse experiences of mental health and mental disorder between individuals, over time for the same individual, and across cultures, suggests that diagnosis can be simplistic, and not always helpful. In fact, the evidence points to great overlap in these putatively discrete disorders, and the range of severity of distress and disability can be better captured by using a combination of continuous and categorical approaches, depending on settings and individual needs. Further, recent genomic studies have shown that many risk variants are shared across clinically discrete phenotypes, such as autism, schizophrenia, bipolar disorder, depression, and alcoholism⁶⁰. The implications for re-envisioning diagnoses remain somewhat unclear: some genomic research has already led to delineation of possible etiological pathways (e.g. potential role of the complement system in schizophrenia), but it is also likely that individual small genetic effects will not readily allow insights into complex pathways purely through genomic analysis.⁶¹ Similarly, new targets emerging from genome wide association studies have the potential to lead to new pharmacotherapies, but such work also faces significant challenges (Panel S1: Genomics in global mental health). Nevertheless, these findings are consistent with dimensional approaches of symptom spectra rather than discrete categories of mental disorder.⁶²

These insights into the biological basis for some conditions serve to strengthen theories based on multiple interacting biological and environmental factors, affecting development throughout the life-course. The Research Domain Criteria (RDoC) framework⁶³ aims to uncover underlying

mechanisms (“deep” phenotypes) that influence cognitive, affective and behavioural functioning, using evidence from diverse disciplines. Deep phenotyping involves the collection of observable physical and behavioural traits of an organism down to the molecular level.⁵¹ When anchored by a carefully constructed clinical profile, the resulting multi-level biomarker set may provide more precise aetiological understanding, and could eventually produce a more accurate way to describe and classify mental health conditions than current diagnostic classification systems. A future hope for deep phenotyping is that it will enable precision mental health care; that is, it will be possible to stratify people living with mental disorders according to understanding of a common biological basis of disease. This may in future lead to identification and more effective management of sub-types of disorders linked to underlying disease mechanisms, such as depression linked to underlying immune dysfunctions.⁶⁴

It is important to clarify that this Commission does not advocate the abolition of classification systems, which clearly have an ongoing clinical utility. How then do we combine the need to recognise diversity and continua, with the requirement of clinicians and researchers for a better categorical classification? One approach is to assess functional impairment: mental and substance use disorders are generally conceived as emotional, cognitive or behavioural disturbances that have reached a threshold that causes *significant functional impairment*, so that individuals struggle to fulfil their desired social roles in their community.⁶⁵ This emphasis on functional impairment is an essential criterion to identify the point at which a person might be considered to have a disorder, or diagnosis. For this reason, the measurement of functional impairment in diverse cultural and socio-economic contexts remains an important priority for global mental health research.⁶⁵

However, functional impairment cannot be the only criterion to guide detection and intervention, as it is important to intervene early, before significant disability sets in. Typically, by the time a diagnosis of mental disorder is made, a lengthy prodromal period has occurred during which a person’s functioning has declined gradually and opportunities for early intervention have narrowed. However, in early stages, symptoms are often transient, mixed and reactive to circumstances. Only as the condition progresses or persists does a clearer picture of symptoms and signs point towards a diagnosis and interventions during these prodromal stages can lead to better outcomes (Figure 5).⁶⁶ Where more severe mental disorders develop, they tend to divide more clearly into the syndromes that have been the focus of most clinical and epidemiological research historically, with clearer benefit from specific clinical interventions for such disorders. In cases of non-specific psychological distress, a diagnosis may not be possible or helpful, but a recognition of need for care can lead to appropriate support and engagement, promoting self-care, or simply closer monitoring.

[Figure 5 here: A staging approach to the detection and treatment of mental disorders]

The *staging model* offers a potential workable compromise between the dimensional and diagnostic approaches, as it recognizes opportunities for intervention at all stages of the pathway from wellbeing through different stages of disorder.⁶⁷ Staging implies modifiability at the individual level with appropriate treatment and care for mental disorders, and at a population or group level by addressing relevant risk factors or strengthening environments that promote mental health. Population-level interventions for prevention of ill health require less targeting, and would benefit those with and without clinically significant symptoms, while more focused attention could be paid to ensuring access to appropriate treatment for those progressing to more severe stages of mental disorder. Between these stages are those with some symptoms, but not sufficient to form a diagnosis – conditions that may be referred to as “sub-syndromal” or “sub-threshold”. While we currently lack sufficient means of accurately predicting who will develop full syndromes and who will respond to our existing interventions, recent promising data have been produced, for example on risk calculators for psychosis.⁶⁸ The staging model is particularly relevant in the critical developmental phase of adolescence and youth.⁶⁹ The combination of the epidemiology of the onset of most mental and substance use disorders, the critical developmental transition from childhood to adulthood, together with the fact that interventions at this stage carry high potential for

short and long-term benefit mean that greater priority must be given to adolescent and youth mental health.

A setting where this staging model is particularly useful is in primary care, where patients often present with less severe and more mixed symptoms, which are not well aligned to categorical classification systems. Primary care algorithms need to focus on symptom-based management by primary healthcare workers and identify risk factors that might guide which patients are at higher risk for developing more severe conditions and require referral. Common symptoms of mental distress like anxiety or low mood are associated with more total disability at a population level, than diagnostically defined mental 'disorders'.⁷⁰ It is important that front-line providers know how to address these concerns, rather than feeling helpless because of the lack of a clear diagnosis which their training tends to promote as a first essential step to treatment. An example is the Practical Approach to Care Kit (PACK), which integrates the identification and management of signs and symptoms of mental disorders into general clinical guidelines for nurses and doctors.⁷¹ Trans-diagnostic psychological interventions might be particularly relevant in this context (see Section 3),⁷² and other sectors such as education, social support, housing or poverty alleviation may need to be engaged.

Ultimately, people are entitled to define their own outcomes of treatment success in the perception of their own lives. This is the promise of a dimensional approach to mental health and the hybrid staging model for the identification and treatment of mental health problems. Such an approach allows clinicians to work in a collaborative multi-dimensional manner, working with a full range of phenotypes and underlying biological and social mechanisms, while still making use of accumulated knowledge about effective interventions for diagnosable disorders.

Universal human and unique contextual experience

The field of Global Mental Health has inevitably grappled with concerns about using predominantly biomedical models originating in the global north to define health, illness and treatment across cultures with diverse perspectives on mental health and mental disorder (see Section 1). The need to promote and provide evidence-based treatments to people who might benefit from them must be balanced with acceptance and respect for the wide range of experiences and behaviours inherent in global human diversity. Illness narratives are often closely linked to adjustment to social adversity or trauma, and carry a specific meaning within the local cultural context.⁷³ Equally, there are many universal features in how humans experience illness across cultures;⁷⁴ emotional pain is as fundamental to human experience as physical pain. A recent systematic review has demonstrated common features in the experience of depression across diverse contexts.⁷⁵ The universal nature of psychological distress has also been demonstrated in relation to the effectiveness of 'common elements' approaches to the delivery of psychological therapies across diverse contexts (see Section 3).⁷⁶ Global mental health practitioners have demonstrated that it is possible to integrate understanding of local explanatory models of illness experiences, while respecting the complementary role of western biomedical and local traditional approaches to treatment.⁷⁷

Even with better scientific understanding of the biological, developmental and genetic causes of mental disorder, it is essential to see the person affected within his or her social context, and to pay attention to their understanding of their problems, their preferences and priorities. The *recovery movement* has pioneered a powerful route to addressing different perspectives in defining illness and deciding on treatment options. This approach emphasises the centrality of the person affected in defining her or his problems and what a successful outcome might be.⁷⁸ This shared decision-making shifts agency to the person, promotes a more equitable power balance and therapeutic relationship, and is in itself empowering. Medical or psychiatric treatment becomes one of a range of potential solutions, which are likely to also encompass drawing on community and personal resources.

Such an approach is also in line with a *social model of disability*, which argues that the extent of a person's disability is largely determined by the social environment rather than simply by the

impairments themselves (this point is discussed later). Acknowledging the impact of stigma and discrimination on people's lives is an example of the potential benefits of this approach.⁷⁹ The tendency to restrict choices for people deemed to be incapable of making decisions robs them of agency, which is an important component of wellbeing. At a service level, improving the experience of service users goes hand-in-hand with improved quality of, and satisfaction with services, and results in better outcomes.⁸⁰ Such a perspective is also well aligned to the human rights approach now guiding policy in both government and civil society sectors (see below).

Convergence in understanding the determinants of mental health

While there have been major advances in knowledge and understanding in diverse approaches, what is remarkable in recent years has been the convergence between areas of enquiry, in particular within a life course paradigm. By 'convergence' we mean a non-reductionist approach that leverages knowledge from diverse disciplinary traditions to illuminate the determinants of a complex human concern. A convergence approach should enable both the development of a stable and testable multi-factorial theory and of context-specific and sensitive frameworks to guide interventions. At the heart of this convergent understanding of mental health is the unique, individual level interaction between diverse determinants across the life course, from conception to death.

We will briefly review the key findings on the diverse determinants of mental health, then describe how these converge and discuss their implications for understanding the aetiology of mental health problems and the mechanisms and timing of interventions.

Social determinants of mental health

Social determinants include a range of social and economic factors that influence the mental health of populations. These include structural social and economic arrangements such as poverty and income inequality, which confer advantage or disadvantage from conception to old age; differential exposure to adverse life events such as humanitarian emergencies and interpersonal violence; and the specific conditions of vulnerability and resilience that these arrangements and exposures produce.⁸¹ Many of the SDGs address these social determinants explicitly, and progress towards their attainment has the potential to promote mental health and to reduce the global burden of mental disorders and inequities in the distribution of mental disorders in populations. The social determinants of mental health encompass five key domains: the demographic, economic, neighbourhood, environmental and social/cultural domains.⁸² These act across distal and proximal levels (see Figure 6). Distal levels refer to the upstream, structural arrangements of society, and proximal levels refer to the way these arrangements are experienced by individuals and families.

[Figure 6 here. Social determinants of mental health and the Sustainable Development Goals]

The *demographic* domain includes gender, age and ethnicity. There is substantial evidence that women are at increased risk of common mental health problems such as depression and anxiety and that men are at increased risk of substance use disorders.⁸³ SDG Goal 5 (Gender equality) is particularly relevant for this domain. Several studies have shown the manner in which gender disempowerment interacts with other adversities such as poverty, gender-based violence, sexual harassment and food insecurity to increase the prevalence of common mental disorders among women.⁸⁴ Risk factors and patterns of the morbidity of mental disorders also vary significantly across the life course, and most mental disorders have their origin in childhood and adolescence. On the other hand, dementias have their onset in older age. Ethnic minority populations, particularly in the context of racial discrimination or migration, are vulnerable to a range of disorders including psychosis, depression and anxiety disorders.⁸⁵

The *economic* domain includes income, food security, employment, income inequality and financial strain. SDG Goal 1 (No poverty), SDG Goal 2 (Zero hunger), SDG Goal 8 (Decent work and economic growth), SDG Goal 9 (Industry, innovation and infrastructure) and SDG Goal 10

(Reduced inequalities) are particularly relevant for this domain. There is now robust evidence that worse economic status is independently associated with a range of adverse mental health outcomes, including common mental disorders, psychosis and suicide.¹⁶ Economic adversity exerts its influence across the life course: poverty negatively affects neurodevelopment and the mental health of children,⁸⁶ children in lower socioeconomic positions are at increased risk of mental ill-health in adulthood,⁸⁷ and there are associations between low socioeconomic status at birth and risk of psychosis in adulthood.⁸⁸ Social causation and social drift/selection are pathways that are widely acknowledged to maintain the cyclical relationship between poverty and mental disorder.⁸⁹ Income inequality erodes social capital (including social trust) and amplifies social comparisons and status anxiety, a recent meta-analysis has shown a consistent association between depression and income inequality.⁴⁵ This is of particular concern in the light of growing inequity in the distribution of resources both within and between nations. A particularly dangerous structural determinant of mental health is that of the influence of the commercial interests on many social determinants, for e.g. in worsening inequality or conflict. Economic interests of the alcohol industry often prevent public health oriented alcohol policies especially within LMIC.⁹⁰ A catastrophic example of the commercial agendas of industry is demonstrated by the ongoing opioid crisis in the United States of America (Panel 5).

[Panel 5 here: The opioid use crisis in the United States of America]

The *neighbourhood* domain includes the built environment, water and sanitation, housing, and community infrastructure. SDG Goal 6 (Clean water and sanitation), SDG Goal 7 (Affordable and clean energy), SDG Goal 11 (Sustainable cities and communities) and SDG Goal 12 (Responsible consumption and production) are particularly relevant for this domain. Neighbourhood characteristics influence the mental health of populations independently of individual level markers of socioeconomic adversity. In the context of rapid urbanization across the globe, urban poverty, exposure to violence and drugs, and the degrading experience of living in crowded urban slums pose major challenges for mental health. On the other hand, well-planned urbanization can also carry benefits such as improved access to labour markets, opportunities for better education and escape from the constraints of traditional customs and expectations.

The *environmental events* domain includes exposure to violence, natural disasters (including the effects of climate change), war and migration. SDG Goal 13 (Climate action) and SDG Goal 16 (Peace, justice and strong institutions) are particularly relevant for this domain. Studies have identified numerous adverse mental health consequences of exposure to negative environmental events such as disasters,⁹¹ whether as a consequence of civil conflict or climate change (*Panel S2: Contemporary global challenges affecting mental health*).⁴⁴ Political context, for example the presence of an authoritarian or intolerant political system, is particularly important in this regard. In addition, there is emerging evidence regarding the inter-generational transmission of traumatic experiences, for example among women exposed to war trauma and chronic stress in the Democratic Republic of Congo.⁹² By strengthening social institutions that reduce violence and promote peace, the SDGs have the potential to substantially prevent mental disorders and promote mental health and wellbeing.

The *social and cultural* domain includes social capital, social stability, culture, social support and education. These factors influence mental health through more proximal social arrangements such as communities and families. SDG4 (Quality education) is particularly relevant for this domain. Improving access to quality education is vital as better education develops cognitive reserve, and is protective against common mental disorders and dementia⁹³ while Educational failure and mental disorders in adolescence interact in a downward spiral.⁹⁴ Education also carries the potential to influence other SDGs that have a bearing on mental health, for example through better employment, reductions in income inequality and gender inequality. Individual cognitive and ecological social capital have also been associated with reduced prevalence of common mental disorders.⁹⁵ Culture has been shown to protect mental health through shared meaning and identity and the loss of cultural identity, for example in contexts of forced migration or indigenous communities, has been associated with negative mental health outcomes.⁹⁶ The effects of social factors on mental health are usually experienced through the important proximal social networks of

families. Consequently, families can promote the mental health and resilience of individuals or increase risk for mental disorder. There are significant immediate and long-term effects on mental health of parenting and child maltreatment (including witnessing intimate partner violence), and the high prevalence of child maltreatment in its various forms has major negative public mental health consequences.⁹⁷

Frequently the domains of social determinants cluster and interact, and this has been given prominence in the emerging field of syndemics.⁹⁸ A combination of two or more social determinants of mental health is therefore likely to connote highly vulnerable populations. This in turn leads to high illness transmission, progression and negative health outcomes – populations marked by “social suffering”.⁹⁹ For example, young women who are victims of displacement following war or natural disasters and live in circumstances of poverty with threats of sexual violence and sexually transmitted infections are likely to be highly vulnerable to depression, anxiety and suicide. Similarly, unemployed urban youth in contexts of violence and substance abuse are more vulnerable. Such populations should be targeted for mental health interventions that are integrated into development or aid interventions.

Biological determinants of mental health

Early research in the genetics of mental disorder demonstrated the presence and the strength of genetic factors but could shed little light on the underlying biology of mental disorders. In recent years, cheaper and faster sequencing technologies have enabled genomic data collection consortia to investigate the genetics of mental disorder on a global scale.¹⁰⁰ Key insights from this research are that: 1) there is considerable overlap in our genetic heritage (all humans are closely related, having emerged from Africa only relatively recently), but also remarkable variation exists across different individuals; 2) such variation comprises both common and rare gene variants ; these variants act in synergy with one another (epistasis), and contribute to different phenotypes (pleiotropy); 3) mental disorders have varying heritability and are polygenic, with contributions from both rare variants of large effect (particularly in conditions such as autism and intellectual disability), as well as from multiple variants of small effect (particularly in conditions such as depression, anxiety disorders and schizophrenia); 4) there is varying overlap in genetic architecture across different mental and physical conditions (for example multiple variants of small effect increase the risk for both schizophrenia and bipolar disorder, while schizophrenia and rheumatoid arthritis have negatively correlated polygenic risk).^{60,101,102}

Environmental stressors, noted earlier in this section, may impact on mental health by influencing gene expression (e.g. turning genes ‘on’ or ‘off’). Early exposure to such stressors alongside sustained exposure can lead to worse mental health outcomes.¹⁰³ Gene expression has been found to change over the life course, through a range of mechanisms. Epigenetics has identified several important mechanisms, including methylation and histone formation, which appear to be relevant in pathogenesis of mental disorders. For example, methylation may be the mechanism underlying the specific dendritic patterns seen in the superior temporal gyrus of people living with schizophrenia.¹⁰⁴ Some epigenetic changes associated with environmental stressors are heritable across multiple generations, meaning that offspring are at increased risk of developing the phenotype associated with the mutation. Epigenetic processes are potentially reversible and could be targeted with precision interventions, as has been shown in animal models. The identification of dysregulated gene clusters, improved brain imaging technologies, and further laboratory work may provide important information to understand mental disorder, including observing epigenetic changes in the human brain and the design of new intervention strategies.

Stress in various forms has been well studied for its effects on mental health outcomes. For example, stressors such as poverty, neglect or sexual and physical abuse, may raise the level of inflammatory cytokines, and negatively impact psychological functioning.¹⁰⁵ The immune system is a biological area of emerging interest in mental health. Several studies have found that a subgroup of people with mental disorders (e.g. depression and psychosis) have altered inflammatory biomarkers.¹⁰⁶ Such findings have generated interest in re-purposing anti-inflammatories for mental disorders and in trying to understand how the immune system might be harnessed to promote

mental health. Ongoing research is seeking to delineate how neuro-inflammatory mechanisms intersect with neurogenesis and apoptosis, neurotransmitter and neuroendocrine (eg the hypothalamo-pituitary axis) systems, and the gut microbiome, to impact on mental health.

The influences on the development of the brain regions underlying mental health start even before conception (because of the hereditary effects of some epigenomic processes). Many developmental disorders, for example those associated with intellectual disability, are the result of disruption in foetal brain development due to a range of factors, ranging from heavy maternal alcohol use to Zika and other intrauterine infections. Early development (0-2 years old) is an especially critical window of risk and resilience (Panel 6). However, we also now understand that the human brain is a dynamic organ, subject to ongoing changes that result from genetic, environmental, social and physiological inputs, across the life span (Figure 7: Biological and social determinants of neurodevelopment across the life course). A key developmental characteristic of adolescence is the differential maturation of the limbic and prefrontal areas of the brain which help explain why impulsivity and risk taking, integral to many mental health and substance use outcomes, are prominent in this age group (Panel 6). Although neuroplasticity diminishes over time, research suggests that new neuronal growth and connections are evident in older age, and may be associated with the introduction of novel stimuli and exercise (Panel 6).¹⁰⁷ Neuronal death accelerates with age and is associated with cognitive decline and the emergence of dementia in old age.

Brain level information provides additional insights onto the biological pathways that contribute to mental health and mental disorder over the life course. Studies deploying functional and structural neuroimaging and electroencephalography (EEG) across diverse disorders demonstrate structural and functional differences in specific brain regions, for example in grey matter volume or in reactivity in a region of interest.¹⁰⁸ These brain level data can be brought together with neuropsychological data to iteratively identify associations between cognitive dysfunctions common to a disorder—for example working memory and episodic learning in schizophrenia-- and brain regions of theorized interest, in this case the pre-frontal and temporo-limbic systems.

[Figure 7 here: Biological and social determinants of neurodevelopment across the life course]

The Convergent Approach to Mental Health

The convergent approach attempts to explain the interactions between the diverse observations on the aetiology of mental health and mental disorders, in particular the heritability of mental disorders; the strong association between social disadvantage and childhood adversity with mental disorders, and the emergence of most mental disorders in youth (Panel 6). This convergent approach proposes that social and economic factors confer risk or resilience for mental health outcomes through their influence on brain development and function, mediated by genomic and neural mechanisms, over the entire life course. However, the impact of social and economic factors such as poverty, trauma, abuse, neurotoxins, life stress, education or parenting, will vary at different stages of the life course and is greatest during the developmentally sensitive phases of early life and adolescence. Furthermore, these factors do not only exert influence in a top-down direction; individuals may shape their own environments and experiences in ways that matter for mental health outcomes, and differences in social experience may be partly driven by genetic factors that contribute to individual differences in cognitive, social and behavioural capabilities.¹⁰⁹

Thus, a convergent approach seeks to build a full account of evidence emerging from the diverse disciplinary traditions which have studied the aetiology of mental health problems. This will require the same attention to what one might call socio-economic phenotypes (or “exophenotypes”)¹¹⁰ as is paid to the clinical phenotypes at more proximal levels of explanation. Specification of concepts such as ‘childhood deprivation’ or ‘stress’ into operational variables is likely to require empirical research that interrogates and explains the mechanisms by which social and economic factors influence the mental health of individuals. The real promise of the convergent approach is that it leverages, and dynamically integrates, multiple levels of explanation simultaneously to build complex models that guide prevention and intervention over the life course; this approach is also

responsive to critiques about biological reductionism.¹¹¹ There are many examples of how the convergent approach could be applied across the life course, in particular in early childhood, adolescence and older age (Panel 6).

[Panel 6 here. Convergence in understanding mental health across the life course]

The Human Rights Framework

Historically, the importance of a human rights approach to health gained momentum after the Nuremberg trials, which highlighted the atrocities which are possible in the absence of a human rights framework. The Nuremberg trials are also relevant because they prosecuted doctors responsible for the Aktion T4 plan, according to which the first group of persons eliminated by the Nazis were psychiatric patients (including children), and the gas chambers were first developed for murdering the mentally ill, before being used against Jews. There are two main ways in which human rights need to be considered with respect to mental health. First, mental health as a human right itself, as an inalienable component of health. Secondly, people living in vulnerable situations (including those with mental disorders) are more likely to have their rights ignored or abused.

Mental Health as a Universal Human Right

The right to health is a fundamental human right and essential in our understanding of living a life with dignity. It is an inclusive right that extends to all aspects of daily living. Although historically the right to mental health has not been clearly conceptualised, several recent policy instruments are starting to change this including the United Nations (UN) Human Rights Council Resolution 6/29 of 2007 which speaks of the right of every person to the enjoyment of the highest attainable standard of physical and mental health; the WHO Mental Health Action Plan 2013-2020 which has human rights as one of the cross-cutting principles;²⁷ the 2017 report of the UN Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health;¹¹² and the UN Convention on the Rights of Persons with Disability (CRPD, discussed later). Additionally, there are also strong links between mental health and the realisation of social, economic and cultural rights. The belief that mental health is a fundamental human right implies that the very circumstances that undermine mental health should be challenged.¹¹² This includes inequalities in income, living conditions, safety and food security which are in danger of being accepted as inevitable or normal. In short, all people have the right to enjoy the shared conditions that allow for the attainment of mental health, including access to quality mental healthcare.

From an equity perspective, the acceptance of mental health as a fundamental human right also draws attention to the needs of specific vulnerable populations who are at greater risk to experience mental health problems. These include persons affected by violence, conflict and forced migration; children and youth in vulnerable circumstances; the very poor; sexual and gender minority groups; indigenous peoples; prisoners; and people with disabilities. Vulnerable groups tend to experience exclusion, prejudice, isolation and denial or lack of access to fundamental rights and services. A plethora of international human rights instruments undergird the rights of vulnerable populations (Table S1: International Human Rights instruments relevant for Global Mental Health).

Under extreme circumstances such as war, natural disasters, and severe resource-constraints, vulnerabilities tend to converge and be compounded in already marginalised populations. The lack of power that children and youth have over their life decisions makes them particularly vulnerable, and initiatives to empower children's voices, recognising their right to self-determination, can challenge this status quo. The United Nations Convention on the Rights of the Child ratified by all countries of the world (except the United States of America), includes several articles directly addressing the Right of the Child to mental health. Children with disabilities often face marginalisation and discrimination and the impact on the child is further compounded by poverty, social isolation, humanitarian emergencies, lack of services and support, and a hostile and inaccessible environment.¹¹³ In a similar manner, the situation of women with disabilities is commonly compounded by the denial of multiple rights.¹¹⁴ These vulnerabilities are also amplified

among older people with other vulnerabilities, such as women with disabilities, people belonging to minority or rural communities, living on the streets and refugees.

Populations affected by humanitarian crises constitute a large vulnerable group whose human rights and mental health are frequently compromised. A recent report from Syria provides a stark example, documenting the impact of the prolonged exposure of children to bombings, conflict and malnutrition on mental health.¹¹⁵ There are estimates of over 200 million displaced persons globally, and similar examples of the resulting violations of the right to mental health can be seen in many other countries, such as in Yemen, the Democratic Republic of Congo and Myanmar.

Persons with mental disorders and psychosocial disabilities

The Convention on the Rights of Persons with Disabilities (CRPD)¹¹⁶ was adopted in 2007, and was quickly signed and ratified by most countries in the world, coming into force in 2008. The Convention promotes, protects and ensures the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and promotes respect for their inherent dignity. People with psychosocial disabilities (the term used in the Convention to refer to mental disorders) participated in the negotiations and have been active in promoting its realization. The ratification of CRPD by countries emphasizes their human rights obligations including support for social inclusion and the removal of “attitudinal and environmental barriers that hinders full and effective participation in society on an equal basis [with others]”. Many countries have revised their legislations on mental health to make them compliant to CRPD. In the absence of a specific statute on mental health or disability in a country, the CRPD can be invoked and rights holders have access to this mechanism for any country where it is ratified.

Despite the development of these international legal instruments, persons with psychosocial and intellectual disabilities are among the most vulnerable globally, experience many forms of marginalisation, and are often left behind when it comes to attaining their human rights and equal access to services and life opportunities.¹¹⁷ Across the globe, people living with mental disorders have often been hidden, tortured, abandoned or left to die. In many countries, lack of access to health services, housing and employment, and sometimes extreme violation of basic rights, are common.¹¹⁸ In 2012, Human Rights Watch reported the forceful detention of persons with mental disorders in prayer camps, and conditions of chaining and denial of mental health services or medication as the most pressing concerns.¹¹⁹ These violations occur across the life course, with particularly vulnerable groups including children and adolescents with neurodevelopmental disorders (including intellectual disabilities), and older adults with dementia.¹²⁰

Such violations of human rights occur most frequently at the nexus of poverty, social marginalisation and lack of access to mental health care. Consequently, the Pan African Network of Persons with Psychosocial Disabilities’ Cape Town Declaration illuminates the role of poverty and dignity in their empowerment strategies.¹²¹ With a few exceptions, programmes aimed at disability inclusion, poverty alleviation and other development priorities have frequently excluded psychosocial and intellectual disability.¹²² In contravention of Article 25 of the UN Convention on the Rights of Persons with Disability (CRPD) which states that health services must be “as close as possible to people’s own communities, including in rural areas”, many low and middle-income countries (LMIC) continue to concentrate their mental health services on inpatient psychiatric hospitals, which are relatively inaccessible.²⁵ The WHO QualityRights toolkit, itself based on CRPD, uses parity with general health services as a benchmark for the quality of care that people should expect to receive.²⁶

In addition to the specific violations of human rights experienced by people with severe psychosocial disabilities, people living with mental disorders are frequently denied fundamental human rights, including the right to freedom, the right to opportunities for education and employment, the right to citizenship, and the right to health care on par with physical health problems. The latter is one of the major reasons for premature mortality amongst persons with mental disorders.¹²³ In addition to the scarcity of service resources, stigma and discrimination are also a fundamental barrier to social inclusion. Such public acceptance of often blatant abuse and

neglect, within and outside of the health care system, would not be acceptable if it were related to any group other than people living with mental disorders.

Recently, attention has focused on Article 12 (Equal recognition before the law) and Article 14 (Liberty and security of the person), with the UN's CRPD Committee's 'General Comments' prohibiting the status quo, where others, usually professionals and legal representatives, make decisions on behalf of people temporarily unable to represent themselves in their 'best interest' (i.e. 'substitute decision-making' or guardianship). The Convention states that all people have inherent legal capacity and should always be at the centre of decisions about their own welfare. Even if on occasion they need support ('supported decision-making'), states should always be most guided by the person's 'will and preference'.⁴⁷ Commentators have referred to guardianship as "civil death" subject to widespread abuse.¹²⁴ They have called for states to develop supported decision-making mechanisms compatible with their settings, to allow individuals to exercise their right to decide and make choices about their lives.¹²⁵ Critics of this view suggest that the absolute commitment to the person's 'will and preference' may inadvertently undermine the right to health, freedom and justice and thereby leading to a backlash including a rise in stigma and discrimination.¹²⁵ In addition, some critics have argued that the CRPD's general comments assume a highly individualistic culture, which is frequently not appropriate in more collectivistic cultures in LMIC, where the role of the family is given more prominence in decision-making. These debates, on how individuals with psychosocial abilities exercise autonomy and agency over matters about them, serve to remind us of work that is still needed to ensure that justice and full, effective and equal participation is achieved. There is an urgent need for greater dialogue between advocates of the CRPD and people working on the ground in LMIC, to articulate systems of review based on evidence-based principles of competency. These could include monitoring guardianship abuses, dedicated and informed representation or counsel, alternative guardian programs, and a robust role of regional and national human rights.¹²⁵

There are similar concerns for people with psychosocial disabilities who are involved in the criminal justice system. A key challenge is balancing individual rights and community safety because of the imprecise means for determining and managing risks. Whatever is the most appropriate approach for the relatively rare instances where the human rights of the individual and the rights of the community collide, there is consensus that the Convention is a powerful tool, requiring Governments to demonstrate recognition of equal rights. There is a need now for the full range of stakeholders to focus on the practical steps required to implement these CRPD principles in the full range of settings where people with mental disorder receive care.¹²⁶ Alignment of law and practice in other areas, for example Article 19 (Living independently and being included in the community), or Article 30 (Participation in cultural life) would go a long way to challenging assumptions that having a mental disorder reduces a person's value before the law and, in a very practical way, improving quality of life of people with psychosocial and intellectual disabilities. The role of civil society and voices of persons with mental disorders is critically important in attaining these fundamental rights (Panel S3: Mental Health Society of Ghana-MEHSOG).

SECTION 3: INTERVENTIONS FOR MENTAL HEALTH

This section of the Commission report addresses the interventions, based on the best available evidence, which we consider necessary to prevent mental and substance use disorders, and to provide treatment and care to enhance recovery. We present these interventions according to stages of the life course, particularly stressing aspects that we find innovative, with the potential for scaling up, and which may be delivered either through routine health or other platforms.¹²⁷ We use case studies to illustrate the implementation of these interventions in the real-world, Panels S3 to S24). Our aim in this section is not to summarise all evidence-based interventions (for this see

other sources and our recommendations for future research in section 4),^{128,127} but rather to convey a sense of what a re-framed mental health system could look like in the future.

Case studies in global mental health delivery

Panel S3: Mental Health Society of Ghana-MEHSOG

Panel S4: Scaling up lay health worker delivered psychological therapy for common mental disorders

Panel S5: Reducing the treatment gap for depression through increasing the demand for mental health care in rural India

Panel S6: Thinking Healthy Programme: a community health worker delivered psychosocial intervention for improving maternal wellbeing

Panel S7: Improving Access to Psychological Therapies

Panel S8: Time to Change programme to reduce stigma and discrimination in England

Panel S9: Increasing the detection of mental disorders in the community

Panel S10: Parenting interventions for families of children with emotional and behavioural disorders

Panel S11: HealthWise: building socio-emotional skills in adolescents

Panel S12: The Going Off, Growing Strong resilience and suicide prevention programme in indigenous Canadians

Panel S13: Expanding youth mental health care in New Zealand

Panel S14: HEADSPACE: Scaling up stigma-free enhanced primary care for young people across Australia

Panel S15: TEAMcare: a collaborative model for depression and co-morbid disorders

Panel S16: Universal mental health coverage in Peru

Panel S17: Integrated HIV care for people with mental disorders in Rwanda

Panel S18: Clubhouse: Improving mental health through community building

Panel S19: IMPACT - Improving access to care for late-life depression

Panel S20: The Kintun program for families with dementia

Panel S21: A collection of inter-agency resources for mental health and psychosocial support in humanitarian settings

Panel S22: Building a primary mental health care system in post-disaster Aceh

Panel S23: Improving quality of care in mental hospitals using a human rights approach

Panel S24: The Banyan: alternative housing for homeless women with mental disorders

We shall first consider four innovative strategies that seek to address supply and demand-side barriers to achieving mental health objectives, namely: (i) improving access to psychosocial interventions; (ii) the use of digital technologies; (iii) the balanced care approach to delivering mental health services; and (iv) interventions to increase the demand for care. We then turn to the application of these innovations across key developmental stages of the life course. Our focus moves finally to interventions for particularly vulnerable groups, in light of the SDG vision of 'Leave no-one behind'. Despite the many challenges outlined earlier in the Commission, we deliberately strike a positive note in our vision of how mental health can be reframed in the future. Indeed, mental health services in many countries have pioneered elements of modern health care faster and more widely than have services for treating people with physical health conditions (Panel 7: Aspects of mental health care which are pioneering across the whole of health care).

[Panel 7 here: Aspects of mental health care which are pioneering across the whole of health care]

Innovative strategies

Improving the availability of psychosocial interventions

The primary goal of psychosocial interventions, including both the so-called 'talking therapies' as well as social interventions, is to facilitate the acquisition of skills to address the risk factors, mediators or consequences of mental health conditions and to facilitate the enabling social circumstances for their recovery. They are supported by strong evidence of their effectiveness across a wide spectrum of conditions, and for a range of goals, from prevention through to the treatment of acute phases of illness and to rehabilitation and recovery.¹²⁹

The effect sizes for psychological treatments typically range from moderate to large and side-effects are relatively rare. The strength of evidence for psychological therapies is at least as strong as for other treatment modalities. Furthermore, when head to head comparisons of efficacy have been conducted between pharmacological and psychological therapies, notably for mood, anxiety and trauma-related disorders, there is no consistent evidence for the superiority of either in terms of attaining remission, and psychological therapies appear to have a greater enduring effect.¹³⁰ Most of these interventions are grounded in a robust orientation of cognitive, behavioural and interpersonal theories, and there is now a growing neuroscience evidence base indicating their mechanisms of action. Regarding social interventions, there is now growing evidence for the effectiveness of specific, manualised programmes, such as individual placement and support (supported employment) to help people with severe mental illness to find and keep jobs.¹³¹

When offered a choice, most people living with mental disorders prefer psychosocial therapies over pharmacological options. A considered balance therefore needs to be struck between pharmacological and/or psychological treatments, with patients being offered a choice where feasible. Furthermore, they can often be used concurrently in a way that can reinforce their individual effects. Despite this evidence, access to these therapies remains very low in most populations, especially because there are very few skilled practitioners of psychosocial therapies in most countries, as well as low rates of awareness of their availability. Further, there are concerns about the acceptability and feasibility of these therapies in the real-world contexts in which they need to be ultimately delivered at scale, when most have been developed in restricted clinical samples in specialist settings of high-income countries.¹³⁰

In recent years a large body of evidence has accumulated highlighting several consistent strategies to overcome these barriers. The concept of task sharing (previously described as task shifting) refers to the transfer of some (mental) health care responsibilities from more-specialised to less-specialized staff. A series of systematic reviews have demonstrated the effectiveness of the delivery of psychosocial therapies in low resource settings for common mental disorders (including trauma related disorders) in adults,⁷⁶ child mental disorders,¹³² schizophrenia¹³³ and for a range of mental disorders in high-income countries.¹³⁴ (Panel S4; Scaling up lay health worker

delivered psychological therapy for common mental disorders) (Panel S5: Reducing the treatment gap for depression through increasing the demand for mental health care in rural India). (Panel S6: Thinking Healthy Programme: a community health worker delivered psychosocial intervention for improving maternal wellbeing) Recent studies also support interventions aimed at the prevention of mental disorders, such as targeting early child development to promote social and emotional competencies in young people.¹³⁵ In at least one country (Panel S7: Improving Access to Psychological Therapies), the exponential expansion of the range of providers with specific training in these therapies has somewhat reduced the treatment gap for common mental disorders.

The sum of this substantial evidence base points to a fundamental rethinking of psychosocial therapies in four respects. First, the content of therapies needs significant modification to incorporate local metaphors and beliefs, and to combine psychological skills building components with social work components. It is also vital to adapt the tasks to ensure acceptability for people with limited literacy (for example completing homework in sessions). Second, the delivery agent is most often a community health worker or lay counsellor who belongs to the same community as the beneficiary population with basic training to achieve competency to deliver the treatment, followed by a structured supervision protocol to assure quality. Third, the setting for the delivery is typically in the community or in primary health care. Fourth, the treatment is delivered over a relatively brief time period (e.g. between 6 to 10 sessions for common mental disorders in adults), to enhance acceptability and feasibility. The non-specialist health care provider ideally should work within a collaborative care framework with access to a specialist provider, who can be remotely located, and who participates in training, oversees quality, and who provides guidance or referral options for complex clinical presentations.

A number of newer innovations indicate strategies that can enable the dissemination of psychosocial therapies. First, a major bottleneck to task-sharing is the reliance on traditional face to face methods for training and on experts for supervision. Both these barriers are now being addressed through on-line training, and the use of peers to supervise therapy quality using structured scales with feedback.⁷⁶ Second, effective treatment packages typically comprise a number of similar 'elements' spanning behavioural, interpersonal, cognitive and emotional domains.⁷⁶ This is consistent with a recent demonstration, involving 832 treatments tested in 437 randomized clinical trials for child and adolescent mental disorders, in which a parsimonious set of 18 practice elements from these treatments were found to map onto the needs of 63% of children with mental health conditions in a community clinic setting.¹³⁶ These observations have led to the development of 'trans-diagnostic' psychological therapies that aim to target multiple disorders either through a common approach for all, or through matching of specific treatment elements for specific syndromes (for example, behavioural activation for depression).¹³⁷ There is a growing body of evidence in support of these approaches, in particular for young people,¹³⁸ and an emerging evidence base for lay counsellor delivered interventions in low resource settings.¹³⁷ The third approach to scale up psychosocial therapies is their dissemination directly to the beneficiaries, in particular for secondary prevention (i.e. intervention in the early or sub-syndromal stages of a disorder). This is potentially the most disruptive innovation of all as it removes the health professional entirely. Apart from the burgeoning industry of apps and websites offering self-delivered psychological therapies, there is also evidence in support of guidance from printed manuals, of relevance to populations with limited internet coverage, or constrained by low literacy levels or language barriers.

The scaling up of psychosocial therapies to enhance population coverage efficiently will rely on a stepped care approach in which the first step comprises self-delivered interventions for mild to moderate conditions. The second step for individuals with more severe conditions could take the form of psychosocial therapy delivered in routine care settings or homes by community health workers or lay counsellors. The next step, which may be accessed immediately for persons with very severe presentations, such as acute psychoses or serious suicide attempts, may take the form of a specialist or physician consultation and intervention options may expand to include medications, more complex psychotherapies or other physical therapies. This stepped approach is, of course, based on the staged model of mental disorders described earlier.

Use of digital technologies for mental health

The rapid growth in mobile telecommunications and internet access affords new opportunities to reach a larger number of individuals living with mental disorders and to bridge the mental health treatment gap. A recent review of 49 studies of digital technology interventions from over 20 low-income and middle-income countries as well as literature on their use in HIC reveals five distinct roles of these technologies.¹³⁹

Digital technology can help with education of the public and disseminating information about common mental disorders through anti-stigma campaigns,¹⁴⁰ substance-use prevention messaging, or efforts to promote awareness using SMS text messages or social media. Online communities represent an opportunity to promote mental wellbeing and enable individuals with mental health conditions to feel less alone and to find support from others with shared experiences. Family members can also access important resources such as social support, recommended coping strategies, and self-help programs delivered online or through mobile phone platforms, as shown, for example, in Pakistan,¹⁴¹ Australia (<https://moodgym.com.au/register.info>), the UK (see Living Life <http://www.llttf.com/index.php>; and in the USA “7 cups” - <https://www.7cups.com/>), and the Depression and Bipolar Support Alliance (<http://www.dbsalliance.org/site/PgerServer?pagename=peer>).

Secondly, digital tools can facilitate screening and diagnosis of mental disorders.¹³⁹ Web-based screening tools delivered on mobile devices, SMS text messaging, or smartphone applications have been used to enable community health workers to identify common mental disorders. With the increasing popularity of online platforms and rapidly developing big data analytic techniques, there may be new opportunities to examine patterns of online interaction to enable early identification of individuals at risk of depression, psychosis, suicide, or substance use.

Thirdly, technology can support the treatment and care of people with mental disorders and the key processes and outcomes of providing effective care. Such technology applications include mobile and online programmes for illness self-management and relapse prevention, SMS text messaging for promoting medication and treatment adherence, and smartphone applications for tracking and monitoring symptoms.¹³⁹ There may also be opportunities to track high-risk situations using wearable sensors or smartphone-based location, time, or activity data and to send real-time alerts to patients or designated caregivers. Social media which offers peer-to-peer networking combined with individually tailored therapeutic interventions and expert and peer-moderation are engaging and positively impact social functioning.¹⁴² Tele-psychiatry applications such as online videoconferencing can allow patients to connect with mental health providers for clinical consultations for diagnosis, follow-up care, or long-term support.¹³⁹ Websites and mobile applications can also be used to deliver evidence-based treatments to reduce alcohol consumption or cognitive-behavioural therapies, making it possible to reach individuals with little access to specialty care or who may be reluctant to seek services due to stigma, long travel distances, or out-of-pocket expenses. The most innovative digital therapies use the digital platform in ways that are unique to this medium, for example using gaming interfaces to assess ‘deep phenotypes’ of mental health and tailor interventions to promote adaptive or ameliorate maladaptive cognitive processes. While these are still at an experimental stage of design and evaluation, they provide another example of how clinical disciplines, cognitive neuroscience and digital technologies can converge to build a radically new vision for therapies for mental disorders (see Section 2).

Fourthly, digital technology can support effective training and supervision of non-specialist health workers, through digital learning and supervision platforms, by providing critical decision support tools, or access to specialist consultation and support. In this way digital applications can extend

the capacity and reach of the limited number of mental health specialists by facilitating off-site supervision and mentoring of local health and lay providers. Such support can build provider capacity and reduce burnout and turnover among frontline health workers.

Finally, technology can also support health care system-level efforts to improve mental health. For example, digital mental health information systems can help track service users and mental health outcomes of defined populations and to make sure that patients do not fall through the cracks.¹⁴³ Tools such as mobile or web-based registries can facilitate care coordination and prompt targeted notifications to the care team or family caregivers. Such technologies could also afford opportunities to identify crisis situations and facilitate rapid response. Digital technology can support health care systems through 'big data' analysis to facilitate system monitoring, planning, and quality improvement as well as targeting specific interventions to patients, a concept increasingly referred to as precision medicine. Another example is the use of geo-informatics to map communities or neighbourhoods at increased risk for mental health and substance use problems such as areas with higher levels of crime or violence. These approaches could improve our understanding of social determinants of mental health at the population level, and inform and evaluate prevention efforts.

Potential risks and harms associated with the use of digital technologies must also be recognized. Technology-based approaches may improve the reach of mental health services but may lose key 'human' ingredients and possibly, effectiveness of mental health care. The use of social media has been shown to be associated with potential risks for mental health such as 'cyberbullying' and the addition of "internet gaming disorders" in the latest iteration of the DSM as a condition for further study is an indication of the mental health consequences of excessive use of these media. It is important but challenging to make sure that information available through mobile or online platforms is safe, reliable and trustworthy. Digital technology creates important ethical risks related to privacy, confidentiality, potential for intrusion and coercion, and circumstances where governments or authorities could further discriminate against persons with mental disorders through tracking and monitoring, for example in access to insurance. Technology interventions could also have the unintended consequence of widening inequalities in mental health care between those who have access to mobile devices or the Internet and those who do not. Although there is a need for policies to guide their safe and effective application, at present such technologies and their applications in health care are unregulated in most countries and research on their consequences on mental health is in its infancy.

A balanced care model for mental disorders

An evidence-based flexible approach to planning treatment and care for mental disorders is the 'balanced care model' which has been elaborated for adults, but which can be generalized across the life course.¹⁴⁴ This model describes mental health service components relevant for low, middle or high income countries (see Figure 8), and emphasizes the need for a balance between community-based support, integration in routine care, and specialist services, customised to each resource setting. This model has now been adapted for this Commission to reflect resource contexts, rather than countries, recognising the large inequalities which occur within countries.

[Figure 8 here: Mental health service components relevant to low, medium and high resource settings]

The balanced care model describes five service components that together comprise specialist services for more severe and enduring conditions. First, *out-patient/ambulatory clinics*, which are the basic building block for care provision in many countries. Second, *community mental health teams (CMHTs)* comprising a range of multi-disciplinary providers and use a case management system for a locally defined geographical catchment area. Third, *acute in-patient care*, to provide short-term care for people in the most severe crises.¹⁴⁵ Fourth, *long-term community-based residential care* rather than long-stay psychiatric beds for those individuals in need of such care.

Fifth, *work, educational and occupation support* to mitigate the social consequences of severe mental health conditions.

In the least resourced settings, the most pressing challenge is to increase the coverage of evidence-based interventions through the provision of care through non-specialist providers who are most widely available on the ground. The focus is therefore upon increasing the capability of primary and community health care staff, and providers in other relevant platforms such as schools and the criminal justice system, to acquire and practice the skills needed to identify and treat people with mental disorders. For children and youth, better integration of mental health care is needed across a range of service platforms which address their concerns, notably education, primary and child health care and social care. At the next resource level, this primary care system needs to be strengthened with the addition of dedicated mental health providers or managers to pro-actively detect and treat people with common mental disorders. At the highest resource level, the balanced care model proposes that for each of these five components, sub-specialist options are developed, for example early intervention teams for people in the first episode of psychosis¹⁴⁶ or specialised teams for children with autism.

Interventions to increase help seeking and demand for care

The low demand for mental health interventions (including follow-up and adherence with care) is the consequence of a range of barriers. Beyond the lack of supply of reliable, quality services, other notable barriers include the stigma attached to mental disorder¹⁴⁷ and the differing explanatory models for mental health experiences in diverse populations. There is emerging evidence that for several mental disorders, only about a half of people living with these disorders wish to seek help. Recent global studies conducted by the World Mental Health Survey consortium, for example, have shown that among people with anxiety, depressive or substance user disorders, for example, only 41%, 57% and 39% respectively^{37,148,149} report that they have a mental health difficulty. Evidence is emerging on how to address these barriers including through inter-personal contact with persons with mental disorders, the engagement of people with mental disorders in all aspects of mental health care, and the use of multi-modal community interventions which incorporate contextual understandings and narratives of mental health and disorder to increase the detection of mental disorders, demand and help seeking for mental health care¹⁵⁰⁻¹⁵² (Panel S9)

Interventions based upon the core principle of inter-personal contact are the strongest evidence-based method for reducing stigma and discrimination, and so promoting the human rights of people with mental ill health. This means creating opportunities for either direct or virtual contact with people with the experience of mental disorders.¹⁴⁰ Such interventions can be targeted to specific groups in the community, for example for health care staff. For young people, inter-personal contact is most effective when carried out in educational settings.¹⁴⁰ Such anti-stigma campaigns have been taken to scale in some high-income countries (Panel S8: The Time to Change programme to reduce stigma and discrimination in England). There is emerging evidence that culturally adapted inter-personal contact interventions can also be effective in reducing stigma in LMIC.¹⁵³ Such measures to reduce stigma must be seen as a core component of a much broader strategy which emphasizes freedom from discrimination, the active promotion of human rights, and no restrictions to social inclusion and participation.

In recent decades there has been a steady rise in the demand for meaningful participation by patients and family members in all aspects of shaping mental health policies, and in planning, delivering, quality assuring and evaluating services. This is a practical manifestation of the slogan 'Nothing about us without us'. Three main types of patient involvement have been described: consultation, collaboration and patient-controlled initiatives. Specific consumer-led interventions include crisis plans, advance statements and advance directives. These are methods to formalise the priorities and preferences of patients in formulating care plans. They have been shown to be effective under certain circumstances in reducing compulsory admission to psychiatric hospital.¹⁵⁴ Decision aid tools are structured approaches to support decision making by patients (in

consultation with staff) for example in choosing between treatment options, or whether to disclose having a history of mental illness.¹⁵⁵ An overarching theme connecting all these elements is the concept of recovery (Section 2).

In many communities the widely varying explanatory models of mental health and disorder (for example that they are equivalent to social suffering or are the result of moral weakness or spiritual / religious misfortune) lead to low levels of self-recognition or detection by health workers. Innovative strategies for educating health workers and communities which integrate biomedical and contextually appropriate understandings and messages have been shown to improve detection of common mental disorders and enhance demand for health care (Panel S9: Increasing the detection of mental disorders in the community) and S5: Reducing the treatment gap for depression through increasing the demand for mental health care in rural India).

Application of interventions across the life course

The reframed mental health system that we envision for the future encompasses interventions related to prevention, and to treatment related to mental health, and applies at key developmental stages across the life course (see Section 2). This vision also emphasises that, a focus on the distributional equity of resources is needed to avoid resources being delivered largely to well-resourced populations (for e.g. urban), and to use interventions purposefully to redress social disparities and disadvantage. While we have presented interventions for each of the key stages of the life course, we emphasize that a 'joined up' package of effective interventions for prevention and treatment through the life course can have significant population level benefits on the burden of depression (Panel 8) and represents excellent value given the burden and impact of mental health problems.

[Panel 8 here: Realising the gains of scale-up - the case of depression]

The early life course

There are several compelling arguments for prioritising child and youth mental health. (i) Acting early in the life course is the key to preventing mental health problems later in life as the majority of mental disorders in adult life have their onset in childhood. (ii) The combined mental and substance use disorders among children and youth are the 6th leading cause of DALYs, accounting for 5.7% of total disease burden in this age group, as well as the leading cause of disability in terms of YLDs, equivalent to a quarter of disability in youth aged 10-24 years worldwide (26.6%).¹⁵⁶ (iii) Neurological changes during the 'sensitive periods' of childhood and adolescence present itself with major opportunities for positively impacting the developing brain. (iv) Childhood neglect, maltreatment and deprivation are strong risk factors for future mental and physical health problems (Figure 9).¹⁵⁷ (v) Globally, there is an enormous lack of child and youth mental health services, and very low levels of financing for these services.⁴⁰ Young people have the lowest rates of access due to under-detection, poor awareness and help-seeking and insufficient priority in policy frameworks.¹⁵⁸

[Figure 9 here: Protective and risk factors at different stages of the early life course]

Acting early is therefore likely to be the most promising investment in population mental health, for the following reasons. First, early recognition of mental health problems or risk factors from birth and parental mental illness, to adulthood is compatible with a clinical staging approach, which emphasizes early stages of mental illness, contributing to a strong preventive focus (Section 2). Second, early recognition can contribute to tackling stigma associated with mental health and promote timely help-seeking, with better prospects of favourable outcomes. Third, special attention to early interventions in high-risk groups, such as children affected by violence, abuse, maltreatment or poverty can contribute to reduction in disparities in mental health. Fourth, investing in child and youth mental health is not only an economic requirement, but also a moral imperative.

More funding for child and youth mental health care can positively impact future unemployment, reduce use of welfare benefits and contact with criminal justice.⁴⁰

The perinatal period and childhood

Investment in young children's development has positive long-term outcomes, improving health, human capital, and wellbeing across the life course.¹⁵⁹ Given the brain's plasticity, the perinatal period and early childhood are critical periods for healthy development and later mental health.

Prevention: Genetic counselling, screening of new-born babies for modifiable risk factors, and reducing maternal alcohol use can prevent intellectual disability. Preventative interventions focussing on maternal mental health, mother-infant interaction, play and stimulation have positive long-term benefits for both infants and mothers.¹⁶⁰ Interventions that promote early initiation of breastfeeding, close physical contact with the mother (e.g. Kangaroo Mother Care) and enhance maternal responsiveness contribute to secure attachment, and have been associated with an increase in bonding indicators such as infant-mother attachment at 3 months and infant growth.¹⁶⁰ Such programs focusing on the early interaction between new-borns and their caregivers, and particularly improving sensitive responsiveness, have also been shown to reduce the risk of child maltreatment;¹⁶¹ additionally, parent education and multi-component interventions (which typically combine family support, preschool education, parenting skills and child care) also show promising effectiveness in preventing child maltreatment and reducing mental health problems in children exposed to adversities and for children affected by armed conflict.¹⁶²

A meta-analysis of 193 studies found that maternal depression was significantly related to increased levels of internalizing (e.g. anxiety disorders) and externalizing (e.g. ADHD, conduct disorder) mental disorders among their children.¹⁶³ (Panel S6) There is also clear evidence for the correlation between parents' PTSD symptom severity and children's psychological distress. There is strong evidence for the effectiveness of interventions for maternal mental disorders in reducing internalising and externalising problems, as well as preventing the onset of childhood mental disorders.¹⁶⁴ Screening for women at risk of antenatal and postnatal depression and providing effective interventions to promote recovery are therefore important preventive interventions for the new generation of children.¹³⁵ Home visiting programs for new mothers and their babies integrate the detection and treatment of maternal depression, including the delivery of psychosocial interventions, within routine pre- and postnatal-care services.¹³⁵

Parenting and child welfare interventions are key investments for breaking toxic cycles of trans-generational transmission of violence, poverty and mental illness. For example, a psychosocial stimulation and parenting support intervention among growth-stunted toddlers led to substantial gains in adult functioning and labour market outcomes later in life.¹⁶⁵ Within schools, life-skills training focusing on the development of social, emotional, problem solving and coping skills is considered best practice for building emotional and social competencies in younger as well as older children (see below).¹⁶⁶

Treatment, care and rehabilitation: Within low resource settings, a basic package of interventions for children and young people may include parenting skills training programmes which are effective for children with developmental, behavioural and emotional problems ¹⁶⁷ (Panel S10: Parenting interventions for families of children with emotional and behavioural disorders); (Panel S11: HealthWise: building socio-emotional skills in adolescents). Children with developmental disorders, and their families, are best supported by community-based, family-focused rehabilitation programmes. The Community-Based Rehabilitation (CBR) model is a rights-based approach, building on the inherent strengths of the community, and involving people with disabilities, family members and volunteers. It should be supported by local health professionals to facilitate inclusion in mainstream services where possible, tailored to local specific needs and resources. The evidence on CBR programmes is mostly supportive of its acceptability and beneficial impact.¹⁶⁸ The effectiveness of low-intensity parenting interventions for children with developmental disorders (such as the WHO Caregiver Skills Training Package) for delivery by

task-sharing in low resourced settings is currently being assessed. Children with Developmental Disorders such as autism can benefit from more specific parent-focussed interventions (effective even when delivered by non-specialists in LMICs).¹⁶⁹ Within higher resource settings, as resources allow, psychosocial interventions with robust evidence for their effectiveness for specific conditions include cognitive behavioural therapy (CBT) and family psychotherapy for anxiety disorder, conduct disorders and ADHD).¹²⁷ Although stimulant medications are effective treatments for children with ADHD, challenges in obtaining diagnostic assessments, and the risk of stimulant misuse in the absence of adequate regulation limits the feasibility of its widespread use outside high resource settings.¹⁶⁷ Further, child training interventions have been shown to benefit school-aged children in reducing behavioural problems.¹⁶⁴

Adolescence and youth

Later childhood and adolescence present further opportunities for ameliorating the effects of early disadvantage, building resilience and reducing the harmful consequences of conditions that have an onset in this period.¹⁷⁰

Prevention: Inequities, in particular those linked to poverty and gender, shape all aspects of adolescent health and wellbeing, calling for strong multi-sectoral actions to address these social determinants and offer second chances to the most disadvantaged.¹⁷⁰ Family, parents, peers, school and community can provide the critical protective inner circle. Universal socio-emotional learning (SEL) interventions in communities and schools promote children's social and emotional functioning, improve academic performance, and reduce risk behaviours, including smoking and teenage pregnancy.¹⁷¹ SEL interventions can be delivered by peers, teachers and counsellors through integrating SEL into youth programmes or school curricula (See Panel S11: HealthWise program in South Africa) School-based programmes require Teacher training, support, supervision and attention to the school environment, suggesting that integration into a whole school approach is preferred. Indeed, the most effective interventions employ a whole-school approach where SEL is supported by a school ethos and a physical and social environment that is health enabling, involving staff, students, parents, and the local community. Such interventions act both directly in promoting self-efficacy and trust, as well as through reducing risk factors such as bullying.¹⁷² Economic analyses indicate that SEL interventions in schools are cost-effective, resulting in savings from better health outcomes, as well as reduced expenditures in the criminal justice system.¹⁷³

Effective prevention programs for reducing drug and alcohol use among adolescents are comprehensive approaches that included anti-drug information, training in refusal skills, self-management, and social skills. Suicidality among adolescents is a major public health concern, as it presents the second highest cause of death among youth globally.¹⁷⁴ Multi-modal programs including community and school-based skills training for students, screening for at-risk youths, education of primary care physicians, media education, and lethal-means restriction offer the most promising prevention strategies (Panel S12: The Going Off, Growing Strong resilience and suicide prevention programme in indigenous Canadians). Targeted or indicated preventative interventions focus on youth who have had experiences that elevate their vulnerability to mental disorders or who show sub-threshold symptoms. Interventions which promote coping and resilience, including cognitive skills training, have been found to help to prevent the onset of anxiety, depression, and suicide.

Treatment, care and rehabilitation: Mental disorders are the leading contributors to the burden of disease in adolescents, and youth-friendly approaches, are needed to address the barriers to access which are unique in this developmental group.¹⁷⁵ A comprehensive approach (Panel S13: Expanding youth mental health care in New Zealand) should involve the active engagement of young people in the design and delivery of services, offer of a choice of low and high intensity interventions including guided self-care delivered digitally and face to face interventions delivered in primary care or stand-alone youth friendly centres which offer a one-stop service for a range of social and health concerns including for mental disorders and substance use disorders. Psychological therapies based on cognitive and behavioural elements are effective for anxiety and

depression, and there is evidence to support the limited use of antidepressants for depression.¹⁶⁷ Screening combined with brief interventions based on motivational interviewing, cognitive-behavioural elements or family support have the most consistent evidence for treatment of substance use problems.¹⁷⁶ Treatment strategies may include replacing substance use with constructive and rewarding activities, improving problem-solving skills, facilitating better interpersonal relationships, including through strengthening family relationships, encouraging young people to accept and stay in care, treating other co-occurring mental disorders, and addressing violence and child abuse. To improve access, quality and continuity of youth mental health care, further development and investment in systems of care are much needed. An example is the multidisciplinary and scaled-up 'Hearspace' program in Australia (Panel S14: HEARSPACE: Scaling up stigma-free enhanced primary care for young people across Australia), which provides youth-friendly stepped care within a clinical staging framework.¹⁵⁸ There is a rapidly expanding literature on interventions at the prodromal stage of psychosis, using a staged care model⁶⁷ and research is underway to tailor interventions for each specific stage which may ultimately lead to personalised care for psychosis and other mental disorders.⁶⁷

The later life course

While most mental disorders have their origins in the earlier course, they often become 'visible' to health services in adulthood, with clinical phenotypes often being precipitated by stressful life events such as related to inter-personal conflicts, financial hardships and loneliness. Progressive neuronal loss with ageing leads to mild levels of cognitive impairment in older age, when frank neurodegenerative pathologies can lead to the onset of dementias.

Adults

Prevention: A recent review of the evidence on preventing mental disorders found that anxiety and depression can be prevented, and that methods to prevent first-episode psychosis appear promising.¹⁷⁷ Even though the effect sizes identified were small, these can have meaningful impacts at the population level. Organizational level interventions can promote mental health in the workplace, including mental health consistent work-place policies (for example on bullying and enabling access to screening and CBT for symptoms of depression and anxiety) and mental health training for managers can reduce sickness absence.¹⁷⁸ The evidence from low resource settings is limited, although there is promising evidence for the SOLVE package, developed by the International Labour Organization, which focuses on integration of stress reduction and awareness of alcohol and drug misuse, into occupational health and safety policies.¹⁷⁹ Interventions to prevent alcohol and drug misuse include limiting their availability through taxes and measures to control price (e.g. market regulations and setting minimum prices with measures to prevent price discounts); limiting sales, advertising and promotion; and implementing national policies that reduce legal blood alcohol content for drivers; and enforcing minimum drinking ages.¹⁸⁰

The limited evidence of the impact of interventions targeting social determinants of mental disorders shows that interventions for poverty reduction, especially in low and middle-income countries, including conditional and unconditional cash transfers, micro-credit and asset promotion programmes, do positively impact on mental health. The Kenyan unconditional cash transfer programme for rural households, found reductions in domestic violence, improvements in adult psychological wellbeing and reductions in salivary cortisol;¹⁸¹ the Ugandan asset promotion programme, found improvements in AIDS orphaned adolescents' self-esteem;¹⁸² while unconditional cash transfers for criminally engaged young men in Liberia found reductions in violent behaviour and criminality; and unconditional cash transfers among urban youth in Kenya, led to reduced odds of depression in young men. Such financial poverty alleviation interventions may improve nutrition, use of healthcare, parenting, income and food security, and can provide opportunities for further education and serve as a buffer against negative life events.¹⁸³ However not all financial poverty alleviation interventions have shown benefits; one study reported that short term loans in South Africa increased perceived stress levels¹⁸⁴ and concerns have been raised

regarding the conditional nature of some cash transfer programmes, for example negative outcomes for loans and some forms of micro-credit.¹⁸⁵

Treatment, care and rehabilitation: A wide range of interventions have been shown to be effective for the treatment and care of adults with mental disorders or substance use disorders. In relation to the latter, effective interventions range from brief psychosocial therapies for common mental disorders to antipsychotic medication for psychoses, mood stabilizers for bipolar disorder and antidepressant medication for depression. Screening and brief interventions with components of feedback and motivational enhancement, medical detoxification, and the use of medications to prevent relapses form the range of interventions for substance use disorders.¹⁸⁶ Mutual and self-help organizations can contribute to the recovery from substance use disorders. Opioid substitution therapies are recommended for harm reduction in opioid dependence, including physical health problems and overdose.

The emergence of chronic conditions, mostly non-communicable disorders but also including HIV/AIDS, as the leading causes of the burden of disease globally, offers a unique opportunity for integration of mental health care in these platforms^{187,188} Health care systems which have traditionally focused on acute care now need to re-engineer themselves for the care of chronic conditions. Underpinning the chronic care approach is the recognition that many mental disorders themselves run a chronic course; that mental and physical health conditions often co-occur with common antecedents and consequences (Figure S2: Shared determinants, interactions and actions required related to long term mental and physical conditions); that the treatment of co-occurring mental disorders can also improve the outcomes of physical conditions; and that the risk factors for premature mortality in persons with severe mental disorders are largely cardio-vascular, metabolic and pulmonary and integrated care must also reduce avoidable premature mortality among people with mental disorders.^{123,189}

A specific delivery model for the integration of mental health in primary care health care platforms, and in particular for the management of multiple morbidities, is collaborative care (Panel S15: TEAMcare: a collaborative model for depression and co-morbid disorders)¹⁹⁰; Task-sharing innovations can be embedded in routine care primarily through a collaborative care approach, where the lay health worker takes the role of case manager who coordinates care with the primary care provider and with specialists.¹⁹¹ Rather than taking a disease-specific, vertical approach, integrated care adopts a person-centred approach, providing continuity of services after initial diagnosis for as long as necessary (Table S2: Benefits of delivering mental health care within integrated care).¹²⁷ The active ingredients of the integrated and collaborative care models are: screening to identify cases; promoting self-care; providing psychosocial treatments and adherence management; support of visiting mental health professionals, and active patient monitoring and follow up including, for people with severe mental disorders, rehabilitation, referral to community agencies, and health promotion.¹⁹² (Panel S16: Universal mental health coverage in Peru). Recent examples that demonstrate the feasibility of planning and providing care at the system level, including integrated primary health care, district and national level multi-stakeholder involvement, capacity building, policy support, and training and supervision for clinical staff are the Programme for Improving Mental health care (PRIME) and the Emerging mental health systems in low and middle-income countries (EMERALD) programme in several sub Saharan African and Asian countries.^{193,194}

A variant of integrated care for people with serious mental disorders entails bringing medical services to the psychiatric hospital, as has taken place in Rwanda where HIV services were integrated into psychiatric care at the tertiary (hospital) level enabling patients to receive testing and treatment in the hospital and also to return for psychiatric care and HIV care during outpatient visits based at the hospital's clinic (Panel S17: Integrated HIV care for people with mental

disorders in Rwanda). Interventions to support work and vocation such as the Fountain House and Clubhouse, which build livelihood skills and social support (Panel S18: Clubhouse-Improving mental health through community building), as well as the individual placement and support programmes is an essential component of a comprehensive response to the goal to achieve inclusion for people with serious mental disorders.

Older people

Prevention: Healthy active ageing is an attainable goal, already achieved by many, even under adversity such as declining health, increasing functional limitation, bereavement with loss of lifelong partners and friends, and social isolation. In terms of health promotion, mental health and wellbeing among older people is indivisible from general health and functioning, and social welfare. Health promotion across the life course, chronic disease prevention, optimisation of functioning and enabling participation, and improving the quality and accessibility of general healthcare are all highly salient to improvements in mental health among older people. The actions required to achieve progress are encompassed in the WHO Global Strategy and Action Plan on Ageing and Health (2016-2020).¹⁹⁵ These include; aligning health systems to the needs and human rights of older persons, developing age-friendly environments, and strengthening long-term care. Within each of these areas, there is recognition of the need to empower older people, respect and promote autonomy, and strive for more effective and comprehensive social protection against the economic and health risks.

Chronic diseases and associated disability, the prevalence of which increases with age, are by far the most important risk factors for the onset of late-life depression. Such multi-morbidity among older people is a major driver of health and social care costs, and a significant challenge to the design and delivery of healthcare services that meet the needs of older people.¹⁹⁶ Interventions to prevent chronic diseases, such as smoking cessation and reduction of hypertension, should have secondary benefits on reducing the incidence of depression. Suicide rates are elevated, particularly among the oldest, and suicide attempts have a high case fatality; low mood, alongside physical illness, pain, and social disconnectedness are the main associated factors.¹⁹⁷ Suicide prevention efforts require better detection and treatment of depression (awareness among community gatekeepers, health professional education and indicated screening), systematic assessment and management of all suicide attempts, and telephone contacts to engage vulnerable older people is also considered to be a promising strategy.¹⁹⁷ Functional impairment has been used to target older people with sub-syndromal depression who are likely to progress to clinical episodes, and provision of low-level stepped care interventions seem to be cost-effective under these circumstances.¹⁹⁷

Dementia prevalence doubles with every five year increase in age, and is the dominant contributor to the mental disorder burden in older people.¹⁹⁶ The diagnosis gap for dementia remains as high as 50% in many HIC, and can exceed 90% in LMIC. Reviews of modifiable risk factors for dementia support a causal role for less education, midlife hypertension, smoking, physical inactivity and diabetes across the life-course.¹⁹⁸ Reinvigorated preventative efforts to reduce exposure levels can yield important and widespread health benefits for older people in ageing populations. As many as one-third of dementia cases may be preventable,¹⁹⁹ with tentative evidence of declining incidence in some HICs.²⁰⁰

Treatment, care and rehabilitation: Most interventions for mental disorders in adults are also applicable to older people, although medication doses may need to be reduced and the risk of side-effects and drug interactions may restrict options for some. Low-intensity psychological interventions with efficacy across the spectrum of severity should be prioritised as the first phase of stepped care for depression.²⁰¹ Behavioural activation, focussing upon renewed engagement in pleasurable activities and greater social participation, is a promising therapeutic option. There may also be trans-diagnostic applications; behavioural activation is helpful for patients with depression as well as dementia, and shares common elements with cognitive stimulation therapy.²⁰² (Panel S19: IMPACT - Improving access to care for late-life depression)

The progressive course of dementia cannot at present be altered through therapeutic intervention, but symptomatic treatments and support are helpful. Acetylcholinesterase inhibitors and cognitive stimulation can improve aspects of cognitive function. Education, training and support reduce carer strain and psychological morbidity, and, in high-resourced settings, delay or avoid transition into care homes.¹⁹⁹ Such interventions may be more effective early in the disease course, and earlier diagnosis allows those affected to participate in advanced care planning while they retain capacity to do so. Beyond these specific evidence-based interventions, the key principles of dementia care are similar to those of chronic disease care described earlier and include a need to continue from diagnosis to death, be holistic and person-centred, and to be well-integrated from primary to specialist care, and also between health and social care sectors.²⁰³ There is emerging evidence to support the effectiveness of case management to coordinate care for people with dementia and their carers. (Panel S20: The Kintun program for families with dementia) WHO's iSupport is an example of online training programmes to support caregivers of people living with dementia, using technology.²⁰⁴

Governments and health systems around the world face a fundamental challenge – how to increase the current very low levels of coverage of diagnostic, treatment and continuing care services, in the face of rising numbers of older people affected, while maintaining or improving quality, and at the same time keeping costs under control.²⁰³ In high resourced settings the focus needs to be upon increasing the efficiency with which services are provided, through integration, coordination and task-sharing. Across most low resourced settings, specialist multidisciplinary care for older people has been slow to develop, and primary and community care are ill-equipped to offer age-appropriate services, including support for carers. In this context, the World Health Organization has recently released the Integrated Care for Older People (ICOPE), an evidence-based guideline for the assessment and management of common, and usually multimorbid, impairments; cognition, mood, nutrition, mobility, vision and hearing, and continence, designed for non-specialist health workers, using home-based interventions for older people to prevent, reverse or slow decline in intrinsic capacities.²⁰¹

Interventions for vulnerable groups

A key focus of this Commission is redressing health inequalities and addressing human rights. Within the wider range of people with mental disorders, there are specific groups of vulnerable people with higher levels of need, including people in humanitarian emergencies, people in institutions and people who are both mentally ill and homeless.

People in humanitarian emergencies

The Inter-Agency Standing Committee (IASC) Reference Group on 'Mental health and psychosocial support in emergency settings' was established in 2005 in the aftermath of the Asian tsunami to develop inter-sectoral normative guidelines and provide ongoing high level coordination for future emergencies. These guidelines recognise the need for protection and human rights standards, and to identify, monitor, prevent and respond to threats through social and legal protection.²⁰⁵ They are designed to apply to disaster management, general health, education, water and sanitation, food security and nutrition, shelter, camp management, community development and mass communication³³ and reinforce the minimum standards in the Sphere Guidelines, which also include mental health standards.²⁰⁶ The guidelines use a stepped approach to care: (1) promoting the wellbeing of the general population through basic security and services, and supporting family and community networks; (2) non-specialised worker delivered interventions⁹¹ for the smaller number of people requiring more targeted individual, family or group interventions to recover from their distress; and (3) specialised services delivered by professionals to severely distressed individuals (Panel S21: A collection of inter-agency resources for mental health and psychosocial support in humanitarian settings).

There is a substantial body of evidence on effective clinical interventions for persons with mental disorders in such humanitarian settings. The guiding principles include reinforcement of existing community resilience, avoiding medicalization of distress, pro-active case identification with referral

to appropriate interventions, integration into emergency medicine and care responses, and actively promoting service use.²⁰⁷ A range of psychosocial interventions, such as trauma-focused cognitive behavior therapy,²⁰⁸ narrative exposure therapy and transdiagnostic psychological therapies²⁰⁹ including those specifically targeted for children,¹³² have some empirical support. Through these efforts (see: www.mhpss.net), there is now a stronger alignment between the mental health and psychosocial support in the humanitarian context and other global mental health initiatives than previously. Importantly, individuals already living with mental disorders may be at particularly high risk during environmental or humanitarian disasters and special efforts may be needed to protect them from harm and to maintain therapeutic and other supports during a time of crisis. An active role for members of local communities and local authorities at every stage of organizing mental health care in these contexts is essential for successful, coordinated action and the enhancement of local capacities and sustainability. The coordinated response should ensure a long-term view that the response builds the foundation of a sustainable mental health care system (Panel S22: Building a primary mental health care system in post-disaster Aceh)

People living in institutions

The evidence from deinstitutionalisation in high income countries is unequivocal - where hospital closure programmes have been carried out reasonably well, and not used as an occasion to reduce the overall mental health budget, then the overall quality of life, satisfaction and met needs of people with long term mental disorders who move from hospital to community care is improved.²¹⁰ In terms of the overall global picture regarding deinstitutionalisation, it is clear that community-based models of care are not inherently costlier than institutions, once account is taken of individuals' needs and the quality of care.²¹¹ Yet such hospital closure programmes have proven to be slow, and cultures of institutionalised care stubbornly resistant to change. This is true for most regions of the world but is a serious problem in relatively wealthy countries that have a legacy of large-scale institutionalisation, such as Eastern Europe.²¹² The World Mental Health Atlas shows little change since 2002 in service structures in low income countries,²⁵ while a moderate degree of change to develop community care has occurred in some middle income countries.

However, it is a matter of great concern that as the number of patients in mental hospitals have gone down, prisons are becoming the modern day mental asylums in some countries. The number of persons with serious mental disorders in US prisons, estimated at nearly 400,000 in 2014, is nearly ten times the number remaining in the nation's state hospitals.²¹³ Conditions in prison can exacerbate mental distress.²¹⁴ Release from prison often results in discontinuity of treatment and care.²¹⁵ Where intensive treatment options for people in psychiatric crises are few, prisons may serve as inappropriate replacement institutions.²¹⁶ This finding reinforces the requirement to provide services in the community to support people with long-term and complex needs²¹⁷ and to provide appropriate mental health and substance abuse programs in prisons that include a range of psychological, social and medication based therapies. It is clear that the SDG call for universal health coverage must also apply to people, including young people, with mental disorders in prisons and in other forms of detention.

Institutions large or small can operate with low care standards. Indeed, the call to close the care "quality" gap is arguably as important as reducing the mental health treatment gap. Advocacy for better institutional standards and respect for human rights is integral to quality care. Initiatives like WHO's Quality Rights program²¹⁸ which promotes the inclusion and empowerment of people with severe mental disorders, demonstrate the principles and feasibility of change for the better (Panel S23: Improving quality of care in mental hospitals using a human rights approach). In addition to evidence-based measures to reduce admissions to hospital wherever possible, improving living conditions and care in institutions is a critical goal where they do exist as part of a balanced mix of services.²¹⁹ Successful hospital reform requires sustained strategic leadership, a realistic timescale for a phased transition to a more community-based pattern of care, where possible brief double running costs while community services are initially established, and active support from the relevant governmental and municipal authorities, including housing and social services/insurance agencies.²²⁰

Homeless people

Homelessness is both a risk factor for, and a recognised consequence of, mental disorders, and increases the risk of suicide.²²¹ Among children and young people who are homeless, the prevalence of mental disorders is also markedly raised.²²² Addressing barriers to health care and social interventions in this diverse group of people can lead to lasting health gains.²²¹ The provision of secure housing,^{223,224} and focused substance use interventions such as Motivational Interviewing are effective in reducing mental health and substance use problems in homeless population. Better outcomes, in terms of quality of life, and reduction in hospital admissions have been associated with the provision of community-based support, such as assertive community teams or critical time interventions for mental and substance use disorders.²²³ recognized interventions include 'Chez Soi' or 'At Home', an example of 'housing first' in Canada. Examples in LMICs include rehabilitation centres and community re-engagement in West Africa,²²⁵ and mental health care integrated with sheltered accommodation in India (Panel S24: The Banyan: alternative housing for homeless women with mental disorders).

SECTION 4: THE WAY FORWARD

The progress made in the global mental health agenda in the last decade has been considerable, but much more needs to be achieved in all countries, especially in resource poor settings, by overcoming the barriers described in Section 1. The sustainable development framework provides an opportunity to reframe mental health and make it an integral component of the broader global development agenda. While mental health is explicitly recognized in the SDG Goal 3, it is also important to note that all other SDGs have been conceptualised to be integrated and indivisible - progress on each SDG supports all others. Hence, the target of reducing the burden of mental disorders is supported by progress made on other goals and targets *and vice versa*. This is an important conceptual shift since mental health has always, and in all societies, remained isolated from mainstream efforts in health and development. This Commission sets out a new perspective to demonstrate how such integration is urgently needed, justified, and ready to be implemented. The previous sections of this Commission provide an historical overview of the journey to this milestone, proposed three principles to reframe mental health in line with this paradigmatic shift, and identify the actions that are needed to make this a reality. This final section presents a way forward for transforming mental health globally within the SDG era.

The Commission strongly recommends a public health approach to the objective of promoting mental health and reducing the global burden of mental disorders within the sustainable development framework. Such a public health approach consists of actions aimed at protecting mental health for all, preventing mental disorders among people at high risk, and providing treatment and care to people with the lived experience. This approach encompasses both policies and actions to create an environment that decreases risks and vulnerabilities while also developing and strengthening services to provide timely and comprehensive quality mental health care to people who need it. This approach follows the principles of being evidence-based and supporting equity and human rights. We do not see a dichotomy between the public health and clinical approaches; indeed, we explicitly include delivery of clinical interventions as an integral and essential component of the public health approach.

The Commission fully endorses the objectives of WHO's Mental Health Action Plan 2013-2020 and goes beyond them, not least in aligning with the SDGs. It provides evidence for many of the actions recommended by the Action Plan, but importantly it also identifies innovative ways in which mental health can be reframed and these actions can be implemented in a variety of diverse settings. The Commission adds the *how* to the Action Plan's *what*. The Commission fully recognises the diversity of settings *across* countries as well as *within* countries and suggests that its recommendations are implemented in an incremental manner depending on the starting point within a particular setting and the likely availability of human and financial resources.

Key messages and recommendations

1. Mental health needs to be reframed within the sustainable development framework

1.1 Mental health is a global public good

Mental health has often been considered as a concern exclusive to people with bio-medically defined mental disorders. While that focus continues to be important, it is appropriate to view mental health as a universal human attribute and an indivisible component of overall health - important to all people in all countries and at all ages. Indeed, mental health is a global public good. In its simplest conceptualization, global public goods are those that should be accessible to all people worldwide, and to both present and future generations. No person should be excluded from a public good ('non-excludable') and possession by one person does not deny it from others ('non-rivalrous'). Mental health is a critical contributor to the concept of human capital, which is being considered as a key driver of the wealth of nations.⁴⁹ The dimensional concept of mental health lends itself to identifying public policies that promote and protect mental health for all people, irrespective of the presence of a mental disorder, much more than the more restrictive concept of dividing all people between those who do not have a mental disorder and those who do. This, however, must not be interpreted as a rejection of categorical diagnoses and classification systems like ICD-10 which remain useful and indeed currently indispensable for clinical practice. Application of a staged model of care across the spectrum of severity can enhance the efficiency and effectiveness of services, overcoming some of the constraints of binary categories.

1.2 Mental health of each person is the unique outcome of the interaction of environmental, biological and developmental factors across the life course.

Mental health is determined by multiple risk and protective factors interacting in a complex and dynamic manner over the life course, so that the mental health of each person is the product of a unique trajectory. Mental disorders have been known to be caused by social, biological and genetic factors for a long time, but the most significant advance in recent years is the evidence of brain development and plasticity throughout the life course, especially in the first two decades, which provides a convergent explanatory framework to explain how social determinants influence brain functioning and, ultimately, mental health, mediated by biological and genetic mechanisms. This convergence has substantial implications for promoting mental health during developmentally sensitive periods, such as the early childhood, adolescence and old age.

1.3 Mental health is a fundamental human right

The sustainable development agenda is a right-based framework. Although it is agreed that "enjoyment of the highest attainable standard of physical and mental health" is a right of every person,²²⁶ mental health is not included in the basic healthcare package offered to people in most countries. While a right-based approach to mental health applies to all persons, an equity perspective compels us to give priority to vulnerable populations. These populations include persons affected by conflicts, natural disasters, and living in extreme poverty. Groups of people who are discriminated against due to their gender, age, race, ethnicity, sexual orientation, disability or beliefs are often vulnerable, requiring specific protection from risks to their mental health. A very special case needs to be made for the rights of people with mental disorders since these rights are very often violated within communities as well as within institutions such as mental hospitals and prisons. Strong safeguards exist within UN conventions such as the CRPD;²²⁷ but specific actions to ensure implementation of these conventions are very inadequate. One of the urgent tasks in this area is to develop consensus driven operational guidelines and capacity for the realization of CRPD keeping in mind the realities of diverse resource settings and the best interests of the beneficiaries.

2. Mental health care is an essential component of universal health coverage

2.1 The call for action to scale up services for mental disorders is still very much relevant

More than 10 years since the *Lancet* issued a call for action for scaling up services for mental disorders,²²⁸ access to mental health services remains very poor and fragmented for the vast majority

of people in the world. Though effective interventions exist and affordable modalities of their delivery have been proven to work, the actual scale up of quality mental health services has not happened in most countries. This Commission must therefore reemphasise the call for action for scaling up mental health care, with even more urgency. Mental health care must be included as an essential component of UHC and access to quality care and financial risk protection must be ensured. Inclusion of mental health within UHC ensures that the concept of indivisibility of physical and mental health is operationalized and new silos are not created or perpetuated. As we celebrate the 40th anniversary of the famous Alma Ata on health for all, we need to ensure that mental health is fully integrated in primary health care. This will involve inclusion of mental health within the basic care packages within primary health care and within reimbursement and insurance schemes as a standard, not as an option. Appropriate attention needs to be placed on people with severe mental disorders, who often find it even more difficult to access care, including for physical health conditions. In view of the established evidence of the effectiveness of task sharing strategies by non-specialist providers, this should form the foundation of the mental health care system. However, such task sharing can only achieve its full potential with the active engagement of mental health specialists including psychiatrists. This requires an expansion in the roles of mental health specialists to training, supervision and coordination tasks. These revised roles would also ensure optimal use of their clinical expertise and consequent rationalization of their clinical work load. Table 1 provides some priority actions for scaling up care in low, middle and high-income settings.

[Table 1 here: Priority actions for scaling up mental health care in low, medium and high resource settings]

2.2 Threats to mental health must be anticipated and counter-acted

Demographic change, particularly the increase in life expectancy and the rising number of young adults and older people, is a key transition; this will put heavier demands on mental health and related social care services. Increasing social inequities, unplanned urbanization, changing family structures and economic and employment uncertainties coupled with large-scale migrations due to war and climate change, all pose their own challenges to global mental health. Child maltreatment and gender-based violence are common, enduring and significant contributors to poor mental health, that are also exacerbated in the face of these newer threats. Policy actions must not only counter-act these drivers of poor mental health (as described in recommendation 3.1) but simultaneously invest in the capacity of the mental health system to address the increase in the numbers of persons who will need care.

2.3 Technological solutions must be embraced

Digital technology offers potential to bring about significant changes in mental health care, including training and supporting providers, monitoring care practices, strengthening information systems and promoting self-help. Digital technology could be used for disseminating information about mental disorders through anti-stigma campaigns and offering platforms for sharing of the lived experience. Quality assurance and potential mental health risks of digital technologies are key concerns; more work is urgently needed on effective strategies to respond to them. Further, digital interventions can only be considered as an additional tool, rather than a substitute for, traditional approaches to mental health care, not least to avoid increasing inequities as the most vulnerable groups may not have access to these.

3. Mental health must be protected by public policies and development efforts

3.1 Actions on social determinants of mental health are critical

The promotion of mental health and well-being, and the prevention and treatment of mental and substance use disorders, requires action on the other SDGs, and can also contribute to the achievement of them. While a detailed discussion of these actions is outside the scope of this Commission, Table 2 summarizes some actions for the relevant SDGs.

[Table 2 here: Actions for protecting mental health and wellbeing within the SDG framework]

3.2 Actions must target developmentally sensitive periods early in the life course

The evidence for the large impact of social determinants during childhood and adolescence on mental health and on the effectiveness of interventions to prevent mental disorders during this phase of the life course must be acted upon. Early identification of risks and vulnerabilities to mental health and delivery of evidence-based interventions, such as life-skills curricula, parenting interventions, whole-school programs and protection from neglect and violence must be applied in all populations.

4. Public awareness and engagement of people with mental disorders must be strengthened

There is need for increasing awareness and engagement of civil society in mental health, in particular of persons with the lived experience of mental disorders. This is likely to enhance both self-help and demand for services when needed. Social contact between people with and without experience of mental disorders is the central active ingredient to reduce stigma and discrimination,¹⁴⁰ as used in many international and national campaigns.²²⁹ There is a pressing need for supporting more persons with the lived experience to be leaders, advocates and peers, to address barriers to accessing to mental health care, and to social inclusion and full citizenship.

5. Investments for mental health must be substantially enhanced

5.1 National financing of mental health care must be increased substantially

Countries at all income levels allocate a far lower proportion of their health budget to mental health care than is warranted based on proportional burden and cost-effectiveness estimates. Health budgets must have an increased proportion of funds for mental health care; while the exact percentage can be arrived at after an assessment of needs along with other priorities, in general, low and middle-income countries must bring up their mental health allocation at least to 5% and high-income countries to 10%. This should be in addition to allocation for other developmental priorities that will also be supportive of mental health. While additional resources are essential, there is also an immediate opportunity for more efficient and effective use of existing resources, for example through the redistribution of mental health budgets from large hospitals to district hospital and community-based local services, the introduction of early interventions for emerging mental disorders, and re-allocating budgets for other health priorities to promote integration of mental health care in established platforms of delivery.

5.2 International development assistance must prioritise mental health

Mental health must be a priority within international development assistance which currently contributes a pitifully small proportion to support mental health care in the least resourced countries despite evidence of the cost-effectiveness of mental health interventions which compare favourably with other health and development interventions. Recent decades have seen emergence of several large foundations investing heavily in health and development and we call on these foundations to recognize the alignment between their current priorities and mental health (Table S3)

5.3 A Partnership for financing and investing in mental health is urgently needed

Apart from taxes and development assistance, innovative financing mechanisms such as social impact bonds and multi-partner trust funds must be explored. We call for a Partnership for transforming mental health globally through the mobilization, disbursement, utilization and monitoring of these funds. Such a Partnership must include engagement of UN agencies and development banks, academic institutions with expertise in implementation and prevention relevant to mental health, the private sector (in particular the technology and pharmaceutical industries), civil society organizations representing the voices of persons with the lived experience, and policy makers from national and international agencies.

6. Innovation and implementation must be guided by research

Investments are needed not only for scaling up mental health interventions but also for continuing knowledge creation. A critical opportunity for mental health science is the convergence of knowledge from diverse disciplines which offers the promise of new understanding of the nature of mental

disorders and how they develop, more effective psychosocial and pharmacological interventions, and an understanding of how to implement these effective interventions at scale. For example, integrating genetics, neuroscience and clinical disciplines could result in improved clinically meaningful phenotypes, an ability to detect these disorders early, and the potential of uncovering new environmental and biological mechanisms as targets for intervention. Similarly, expertise from the political, economic and social sciences needs to be harnessed to answer critical questions around how to deliver interventions at scale. The efforts to scale up mental health interventions presents an important opportunity to embed scientific research alongside the implementation of programmes. These research themes are aligned with the Grand Challenges in Global Mental Health³⁴ which set the stage for the implementation science which has transformed the evidence base of the field and whose broader goals have the potential to guide actions towards the achievement of the SDG targets on mental health and wellbeing (Table 3). Research investments must be increased, and co-ordinated across funders and recent developments, such as the emergence of the International Alliance of Mental Health Research Funders,²³⁰ are indicative of the steps being made in this direction. Early and continuous dialogue between researchers and policy planners is especially important in low and middle income countries to ensure that the research conducted is relevant to the needs of the country and has a direct and immediate impact on policy and practice.

[Table 3 here: Research priorities for global mental health and sustainable development]

7. Monitoring and accountability for global mental health must be strengthened

7.1 A comprehensive monitoring mechanism for mental health should be implemented

Though WHO's Mental Health Action Plan has a set of indicators and targets, these are insufficient for monitoring the reframed mental health agenda proposed by this Commission. WHO's Mental Health Atlas provides a unique source of comparable information from almost all countries, but has inadequate data on a number of variables and issues on quality since the information is collected exclusively from governmental sources. Steps must be taken to improve data coverage and quality in Atlas. One of the specific indicators for monitoring mental health in SDGs (suicide mortality rate) tracks a very specific final negative outcome. For an all-round impact on global mental health within sustainable development, there is need for more robust, long-term and comprehensive monitoring and accountability mechanisms. The Commission has proposed a set of mental health and sustainable development indicators which covers not only key aspects of the mental health care system itself but also acknowledges the influence of factors outside it. Over and above core indicators of mental health system capacity, provision and outcomes, we identified a number of other indicators relating to domains of social and environmental determinants of mental health, for which there are already widely available global data being collected for SDG or other reporting (Table 4).

[Table 4 here: Indicators for mental health and sustainable development]

Reporting of these data can take more than one form. Most simply, a compilation of available data can be pulled together into a country profile, as already done through the WHO Mental Health Atlas (http://www.who.int/mental_health/evidence/atlas/profiles-2014). Such profiles do not provide information about overall performance relative to other countries or to agreed notions of better or worse performance or to inequities within the country. For that purpose, it is possible to re-fit country-specific and sub-national scores for selected indicators to a common scale and then, if desired or justified, partition scores into categories of relative achievement or synthesise them into an overall index as has been done for human development or sustainable development itself.²³¹⁻²³³ Such a synthesis, however, represents a highly simplified abstraction of what we have already argued is a complex system of influences and their interactions. Accordingly, the Commission considers it premature to produce a mental health system performance index at this time, and instead, presents a preliminary investigation of the selected indicators which we consider have the most influence or predictive value for the SDG targets for mental health (see Panel 9).

[Panel 9 here: Mental health and well-being: what are the key predictors?]

7.2 Accountability frameworks for mental health must be put in place

Increased investments must be matched with strengthened accountability frameworks. The WHO already has a mechanism for reporting progress to its governing bodies against the agreed goals and targets of the WHO Mental Health Action Plan.^{25,234} Monitoring and accountability in an era of global mental health and sustainable development needs an oversight body with a broader inter-sectoral representation and mandate. At the global level, this role could be played by the multi-sectoral Partnership for transforming mental health globally (as proposed earlier). The Partnership's accountability function may be performed by a network of Hubs, governed by a secretariat, with specific expertise needed for supporting countries in the collection, analysis and reporting of data, as well as take on several other roles, such as priority setting, resource allocation, quality assurance, capacity building, evaluation of impact and continued tracking of needs. Similarly, at the national level, accountability can be enhanced through an autonomous, inter-sectoral oversight body charged with similar tasks, with a particular focus on reducing mental health disparities within country. Complimentary to this approach would be to incorporate mental health into the remit of existing accountability mechanisms, such as those established for child and maternal health or for NCD prevention and control; the recent establishment of the independent *High Level Commission on NCDs* by WHO which has included mental health in its remit is an example of such an opportunity. Additionally, existing UN Conventions, in particular those relating to the rights of the child and the rights of persons with disabilities, provide a powerful basis for calling responsible authorities to account using established mechanisms for reporting on their implementation.

A note on how the actions of the Commission itself might be measured- we suggest the following: citations of the Commission in national and international policy documents, attributions of the work of the Commission to key policy or funding commitments, citations in academic research literature and influence on research agendas and funding.

Conclusion

When world leaders adopted the SDGs, they were committing themselves to action on a much larger scale than ever before in the history of humanity. Promoting mental health, preventing mental disorders, and including mental health care in universal health coverage is fully part of this agenda. While 'no health without mental health'²³⁵ continues to be an important aspiration, we have now entered the era of 'no sustainable development without mental health'. Mental health has, for far too long, remained in the shadows. New knowledge accumulated in recent years, and new international and national commitments made at the highest levels over the same period, have the potential to transform this situation. Based on this knowledge and opportunity, this Commission proposes that mental health needs to be reframed. Urgent action is needed to protect mental health and prevent mental disorders, alongside scaling up services to detect, treat, and support recovery of people with mental disorders. This places mental health at the very centre of sustainable development in all countries and communities, and for all people. To realize this vision, substantial and urgent investments are needed at international, national and community levels not only within the health sector but also in other development sectors. Most importantly, we need a concerted and coordinated effort involving all the stakeholders concerned with realizing the mental health aspirations of the SDGs. We therefore call for a Partnership to transform mental health globally, with engagement of key sectors concerned with mental health, both at the global and at country and sub-national levels, and with the full involvement of people with the lived experience of mental disorders. We, the Lancet Commissioners on Global Mental Health and Sustainable Development believe that urgent action to fully implement our recommendations will contribute to the attainment of both the health and to many other targets of the SDGs.

Non-text items

(Panels, Figures and Tables)

Panel 1: United Nations Sustainable Development Goals (SDGs) specifically pertaining to mental health

SDG 3	Ensure healthy lives and well-being for all at all ages
Target 3.4	Requests that countries: “By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being”
Indicator 3.4	Suicide mortality rate
Target 3.5	Requests that countries: “Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol”
Indicator 3.5.1	Coverage of treatment interventions for substance use disorders
Indicator 3.5.2	Coverage of treatment interventions for harmful use of alcohol
Target 3.8	Requests that countries: “Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all”

Panel 2: The five leading grand challenges for global mental health³⁴

1. Integrate core packages of mental health services into routine primary health care
2. Reduce the cost and improve the supply of effective psychotropic drugs for mental, neurological and substance use disorders
3. Train health professionals in low- and middle-income countries to provide evidence-based care for children with mental, neurologic, and substance use disorders.
4. Provide adequate community-based care and rehabilitation for people with chronic mental illness
5. Strengthen the mental health component in the training of all health care personnel to create an equitable distribution of mental health providers

Panel 3: A fresh perspective on global mental health and sustainable development

- Expanding the agenda of global mental health from reducing the treatment gap to reducing the global burden of mental and substance use disorders by concurrently addressing the prevention and quality gaps, and extending the scope of ‘treatment’ to include social care
- Proposing three key principles for the reframing of mental health
 - A staged approach to understanding, and responding to, mental health problems, as opposed to the binary approach of current classifications
 - Reconciling the nurture versus nature debates by converging the findings of the social and biological determinants of mental health problems on a life course trajectory of neurodevelopmental processes
 - Recognizing mental health as a fundamental human right for all people, in particular for people whose mental health is at risk or is already impaired
- Advancing the scaling up of four innovations in global mental health interventions
 - The task-sharing of psychosocial interventions to non-specialised workers as the foundation of the mental health care system;
 - The coordination of this foundation with primary and specialist care to achieve a balanced model of care
 - Adopting digital platforms to facilitate the delivery of interventions across the continuum of care, and
 - Implementing community-based interventions to enhance the demand for care

Panel 4: Definitions of key terms*

Happiness: subjective satisfaction with life, which incorporates both the emotional experience of feeling good or experiencing pleasure (hedonic tradition) and the perception of living a meaningful and good life (eudaimonic tradition); increasingly viewed as an important way of judging the success of society in meeting human needs.²³⁶

Wellbeing: subjective evaluation of life satisfaction.²³⁷ Broader definitions also consider less subjective social and personal circumstances that might be considered to contribute to a good life.

Quality of life: an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.²³⁸

Mental health: the capacity of thought, emotion and behaviour that enables every individual to realize their own potential in relation to their developmental stage, to cope with the normal stresses of life, to study or work productively and fruitfully, and to make a contribution to their community.²³⁹

Mental disorder: disturbances of thought, emotion, behaviour, and/or relationships with others that lead to significant suffering and functional impairment in one or more major life activities,²³⁹ as identified in the major classification systems such as the WHO International Classification of Diseases (ICD) and the Diagnostic and Statistical Manual of Mental Disorders (DSM).

Social suffering: The ways in which the subjective components of distress are rooted in social situations and conditioned by cultural circumstance.²⁴⁰

Psychosocial disability: Disability associated with impairments related to mental disorders, which limits the ability to participate fully in social and community life. These disabilities come about as a result of the interaction between these impairments and the way that societal barriers prevent full participation.²⁴¹

Recovery: From the perspective of the individual with mental illness, recovery means gaining and retaining hope, understanding of one's abilities and disabilities, engagement in an active life, personal autonomy, social identity, meaning and purpose in life, and a positive sense of self.²⁴² Importantly, it is defined by the person themselves and not others' definition of what recovery means.

Resilience: the capacity of individuals to adapt to adversity or stress, including the capacity to cope with future negative events.²⁴³ Resilience can also be seen at a community level, and in fact is recognised as an important factor contributing to the relatively low proportion of people in emergencies who develop long-term mental disorders.

* This list is not intended to be comprehensive, and focuses on key terms that are relevant to the personal or human experience of mental health and mental disorder. It does not include broader terms such as "mental health problems", "mental health issues" or "mental ill-health".

Panel 5: The opioid use crisis in the United States of America

More than 64,000 people died from drug overdoses in the United States of America in 2016 alone,²⁴⁴ an increase of 540% over the previous three years. It is now widely accepted that this trend has been preceded by a significant increase in prescriptions of opioids by health professionals: according to some reports prescription opioid sales quadrupled from 1990 to 2010, and the Centres for Disease control estimates that since 2000 more than 300,000 Americans have died from overdoses of prescription opioids.²⁴⁵ Several factors appear to have driven the rise of this epidemic. Chief among these is a growing trend of aggressive marketing of opioid compounds such as OxyContin to doctors, nurses and pharmacists by large pharmaceutical companies, notably Purdue Pharma.²⁴⁶ From 1996 to 2001 Purdue Pharma conducted over 40 national “pain management symposia” to market this product, attended by health professionals in picturesque locations. In a landmark case in 2007 the company was fined over \$600 million for misleading the public, although its profits far exceeded this amount. The problem is exacerbated by current policy that criminalizes opioid use: criminalization drives opioid-users to a black market, where heroin cut with cheap fentanyl or carfentanyl results in an unnecessary and often deadly consequences. Regulations to restrict opioid prescriptions and marketing of these highly addictive drugs have since been introduced in several high-income countries. In response to the opioid crisis, the U.S. Department of Health and Human Services has developed a 5-point strategy, including improving access to treatment and recovery services and promoting use of drugs that can reverse overdoses.²⁴⁷ In August 2017 the Trump administration declared the epidemic a national emergency, although at the time of writing the administration had not yet presented a planned response. But a concern has been raised recently regarding the prospect of a new global marketing initiative by producers of OxyContin targeting low and middle-income countries such as China, Brazil, other Latin American countries, the Middle-East and Africa.²⁴⁸

Panel 6: Convergence in understanding mental health across the life course

The convergent model of mental health offers a unified perspective to tie findings emerging from developmental science, neuroscience, intervention science and epidemiology together, as illustrated by the following three life course cases.

In the early years of **childhood** adverse family circumstances result in children experiencing early life stress which can lead to mental health problems in later life.²⁴⁹ Structural magnetic resonance imaging (MRI) studies show that the volume of grey matter in the developing brain is dependent on family income and socio-economic status (SES) during early childhood and these effects are prominent in brain areas such as the hippocampus, amygdala, prefrontal cortex and the language cortex of the left hemisphere,²⁵⁰ which are important for cognitive functions such as memory, social-emotional processing, executive function and language respectively. Parenting interventions which target early life stressors or cognitive stimulation have been shown to improve cognitive outcomes in children and reduce the incidence of mental health problems in later life. The demonstration of the potential mechanisms that these interventions target has come from studies comparing animals raised in deprived environments to those reared in enriched ones.²⁵¹ Thus, the convergent model has allowed us to explain the major observations of the association of low SES with poor mental health in childhood and the beneficial impact of stimulation interventions in early infancy.

Cognitive psychology and neuroscience studies has transformed our understanding of not just the potential reason for the onset of mental disorders in **adolescence**. One of the unique transitions which occurs during adolescence is that the opinion of peers begins to take precedence over that of family members and parents. This sensitivity to peer influence in turn leads to adolescents being sensitive to social stimuli and having an increased propensity to undertake risky behaviours.²⁵² Delayed maturation of the prefrontal cortex, involved in impulse control and the reward system, could be responsible for behaviours related to impulsivity and risk-taking.²⁵³ Testosterone might moderate risky behaviours which might explain the sexual dimorphism observed in these behaviours.²⁵⁴ Interventions aimed at strengthening social and emotional competencies, often focusing on enhancing emotional regulation, packaged as life skills education,¹⁶⁹ mindfulness or yoga, can have preventive effects. Mindfulness meditation has been associated with structural changes in parts of the social brain network such as anterior cingulate cortex, medial prefrontal cortex and amygdala.²⁵⁵ Convergent models help elaborate the mechanisms of the onset of mental disorders in adolescence and how preventive interventions interrupt these pathways.

Mental health in **older adults** must also be understood from a life course perspective. Persons with more formal education in early life have a lower risk of developing dementia;¹⁹⁸ formal education may be a proxy for intelligence and brain development. Several studies suggest inverse associations between skull circumference and leg length and dementia risk in late life. There are several possible mechanisms;¹⁹⁸ quantitatively, larger and better developed brains with more neurones and richer connections could incur more neurodegeneration before failure becomes apparent ('brain reserve'); qualitatively, better educated individuals may have more facility to perform complex and efficient cognitive processing to compensate for damage ('cognitive reserve'); or those with better education may access healthcare services and adopt lifestyles that optimise brain health across the life-course. There is a dose response relationship between cumulative depression burden over the lifespan and the risk for cognitive impairment and dementia.²⁵⁶ Hypothesised causal mechanisms include the toxic effect of chronically elevated adrenal glucocorticoid production on hippocampal cells; biological links between depression and thrombotic, atherosclerotic and inflammatory cardiovascular disease pathways; and the impact of depression on cardiovascular disease risk behaviours, help-seeking, and treatment adherence.²⁵⁷ Recent research has highlighted the relevance of cognitive ageing and depression, which often

accompany physical frailty, and in the case of depression, may play a causal role in its onset.²⁵⁸ It is possible that common biological mechanisms may underpin these associations, including, particularly, the trajectory of cellular ageing across the life-course (as indicated by epigenetic and genomic markers),²⁵⁹ and immune activation.²⁶⁰ Further elucidation of these mechanisms, and their determinants will be a key step towards optimizing brain and mental health at all ages.

Panel 7: Aspects of mental health care which are pioneering across the whole of health care

- 1) The reconfiguration of care away from hospitals and into community settings.¹⁴⁴
- 2) A commitment to involving patients and family members in planning and providing services.²⁶¹
- 3) Providing aspects of social interventions alongside psychological and pharmacological treatments tailored to the needs of a specific individual (the hall-mark of 'person-centred care') through multi-disciplinary teams.²⁵
- 4) A focus upon co- and multi-morbidity across mental and physical long-term conditions.²⁶²

Panel 8: Realising the gains of scale-up - the case of depression

As a complement to real-world evaluations across different geographical and service settings, modelling techniques can be and have been used to inform estimation of the expected impacts of mental health programme scale-up.²⁶³ To illustrate the potential health impacts of scaled-up action across the life course, the Commission has assessed the comparative impact of a set of scaled-up treatment and prevention strategies, using depression as the index disorder, owing to its prevalence throughout the life course, the disease burden it accounts for at the population level, as well as the availability of effective interventions. Seven intervention strategies were assessed (Table below). This intervention set is evidently illustrative of best practice rather than exhaustive. For each intervention, a consistently high intervention coverage rate of 80% was used to enable like-with-like comparison of population-level effect.

Effectiveness of depression prevention and management strategies over the life course

	Intervention strategy	Delivery platform	Age group	Target population	Health impact (parameter)	Effect size / Relative risk	Reference	Effect size (% change)
1	Caregiver / parental skills training	Community	5-9	Children	Disability	SMD = - 0.28 (-0.44~-0.13)	264	-5.2%
2	Life skills training in schools	Schools	10-14	Secondary school enrollees	Incidence	RR = - 0.45 (-0.58~-0.35)	265	-55%
3	Wellness programs in the workplace	Workplace	20-59	Employed adult workers	Disability	SMD = - 0.16 (-0.24~-0.07)	266	-3.0%
4	Social participation of older adults in the community	Community	60+	All	Disability	SMD = - 0.32 (-0.50~-0.14)	267	-6.0%
5	Psychological treatment for perinatal depression	Health care system	15-49	Women in the perinatal period	Disability	SMD = -0.38 (-0.56~-0.21)	268	-6.4%
					Remission		269	14.0%
					Incidence	RR = -0.72 (-0.94~-0.56)	270	-28%
6	Psychological treatment for depression in adults	Health care system	20-59	Adults with depression	Disability	SMD = -0.30 (-0.48~-0.13)	271	-5.6%
					Remission		269	14.0%
				Recurrent cases only	Incidence	RR = 1.39 (1.13~1.70)	272	-28%
7	Pharmacological treatment for depression in adults	Health care system	20-59	Adults with depression	Disability	SMD = -0.34 (-0.47~-0.22)	273	-6.4%
					Remission		269	14.0%
				Recurrent cases only	Incidence	RR = 2.03 (1.80~2.28)	272	-51%

Population-level health effects were generated for each year from 2015 out to 2030, with final year estimates subsequently expressed as a proportion of the total and age-specific disease burden attributable to depression, as reported for each country in WHO's Global Health Estimates for the year 2015. The strategic planning OneHealth tool, the mental health module of which has been applied to a number of previous analyses and country settings²⁷⁴ was used for the population modelling.

(http://www.who.int/healthinfo/global_burden_disease/estimates/en/index2.html). Analysis was carried out for a range of geographical and income settings with diverging demographic and socio-economic profiles, including: low-income, Africa (e.g. Ethiopia, Tanzania); lower-middle-income, Asia (e.g. India, Indonesia); upper middle-income, America (e.g. Brazil, Mexico); high-income, Europe (e.g. France, Germany). Population figures for each country are taken from the UN Population Division, while age and sex-specific depression prevalence estimates are derived from the Global Burden of Disease 2015 study (<http://ghdx.healthdata.org/gbd-results-tool>).

Results of the population-level depression modelling are shown in the table below. When delivered at scale (80% coverage), healthy life years gained per one million population in the year 2030 range from less than 5 (caregiver skills training for children aged 5-9 years) to more than 1,000 (long-term pharmacological treatment of recurrent depression in adults aged 20-59 years), reflecting the relative prevalence of depression at different ages, the relative size of the target group as well as the relative size of intervention effects. Life skills programmes for enrolled school students aged 10-19 years are capable of generating over 250 healthy life years per one million population, while wellness programmes in the workplace and social participation programmes for those aged 60 years or older lead to less than 50 healthy life years per one million population. Treatment of perinatal depression on an episodic basis generates close to 20 healthy life years per one million population; by comparison, treatment approaches that also proactively identify those at risk and thereby prevent the onset of depressive episodes have population-level impacts that are at least three times greater (76 healthy life years per one million population). Similarly, but for a much larger target group of all adults aged 20-59 years, proactive psychological and pharmacological treatment programmes have the potential to generate three to five times the health gain of programmes that manage depression cases solely on an episodic basis because they avert a proportion of recurrent episodes that would otherwise have occurred.

Estimated population-level impact of scaled-up depression interventions

S. No	Intervention	Target age / sex group	Healthy Life Years (HLY) gained per 1 million total population* (in 2030 at 80% coverage)	HLY gained as % of depression burden in target group*	HLY gained as % of depression burden in total population*
1	Caregiver / parental skills training	5-9, both sexes	2	4.2%	0.0%
2	Life skills training in schools	10-19, both sexes	255	36%	4.1%
3	Wellness programs in the workplace	20-59, both sexes	31	0.7%	0.5%
4	Social participation of older adults in the community	60+, both sexes	16	1.7%	0.2%
5a	Psychological treatment of perinatal depression on an episodic basis	15-49, females	20	0.8%	0.3%
5b	Psychological treatment for perinatal depression on a proactive basis	15-49, females	76	3.2%	1.2%
6a	Psychological treatment of depression in adults on an episodic basis	20-59, both sexes	239	5.4%	3.9%
6b	Psychological treatment of	20-59, both sexes	888	20%	14%

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	recurrent depression in adults on a proactive basis				
7a	Episodic pharmacological treatment of depression in adults on an episodic basis	20-59, both sexes	247	5.6%	4.0%
7b	Pharmacological treatment of recurrent depression in adults on a proactive basis	20-59, both sexes	1,434	32%	23%
	Total burden of disease for major depressive disorder in 2015 (per 1 million population)*	All ages, both sexes			7,265

* Values are the average for 8 countries across 4 income groups

Panel 9: Mental health and well-being: what are the key predictors?

Based on the Commission's proposed set of indicators for monitoring mental health and sustainable development (Table S4), a quantitative analysis was carried out to identify which of these variables had greatest explanatory value in predicting the SDG target of promoting 'mental health and well-being' (as measured by surveys of subjective well-being). To account for the substantial level of data missing (at random) across domains and countries, this analysis focused on indicators for which data are currently available for at least 75 countries. Since many data points were still missing for even these indicators, we used a Markov chain Monte Carlo (MCMC) algorithm to impute values for missing country variables, then we averaged across multiple iterations to obtain one dataset. Given the anticipated multicollinearity between predictors ($VIF > 5$ for 8/10 predictors), we used principal component analysis to extract 5 principal components with Eigenvalues > 1 from the following domains: (A) Mental health determinants: (1) Poverty, literacy, and income inequality component (47.88% of variance), (2) Employment and income inequality component (26.10% of variance); (B) Mental health systems and services component (56.97% of variance); and (C) Mental health system goals: (1) Social and financial risk protection component (45.51% of variance), (2) Suicide and alcohol consumption component (27.58% of variance). Then, we used a least absolute shrinkage and selection operator (LASSO) regression model with the principal components as predictors of subjective well-being to enhance prediction accuracy and interpretability. Out of the five principal components of the indicators identified and profiled, key drivers of subjective well-being at the national level are the **social and financial risk protection component** of mental health system goals ($\beta = 0.383$), and the **poverty, literacy, and income inequality component** of mental health determinants ($\beta = -0.362$), $R^2 = 0.61$, $R^2_{adj} = 0.588$, $R^2_{reg} = 0.583$, $F(3,185)=32.39$, $p<0.001$. These findings thereby lend support to a central hypothesis and argument of this Commission, namely that social and environmental determinants play a critical role in shaping population-level mental health.

Figure 1: The evolution of global mental health















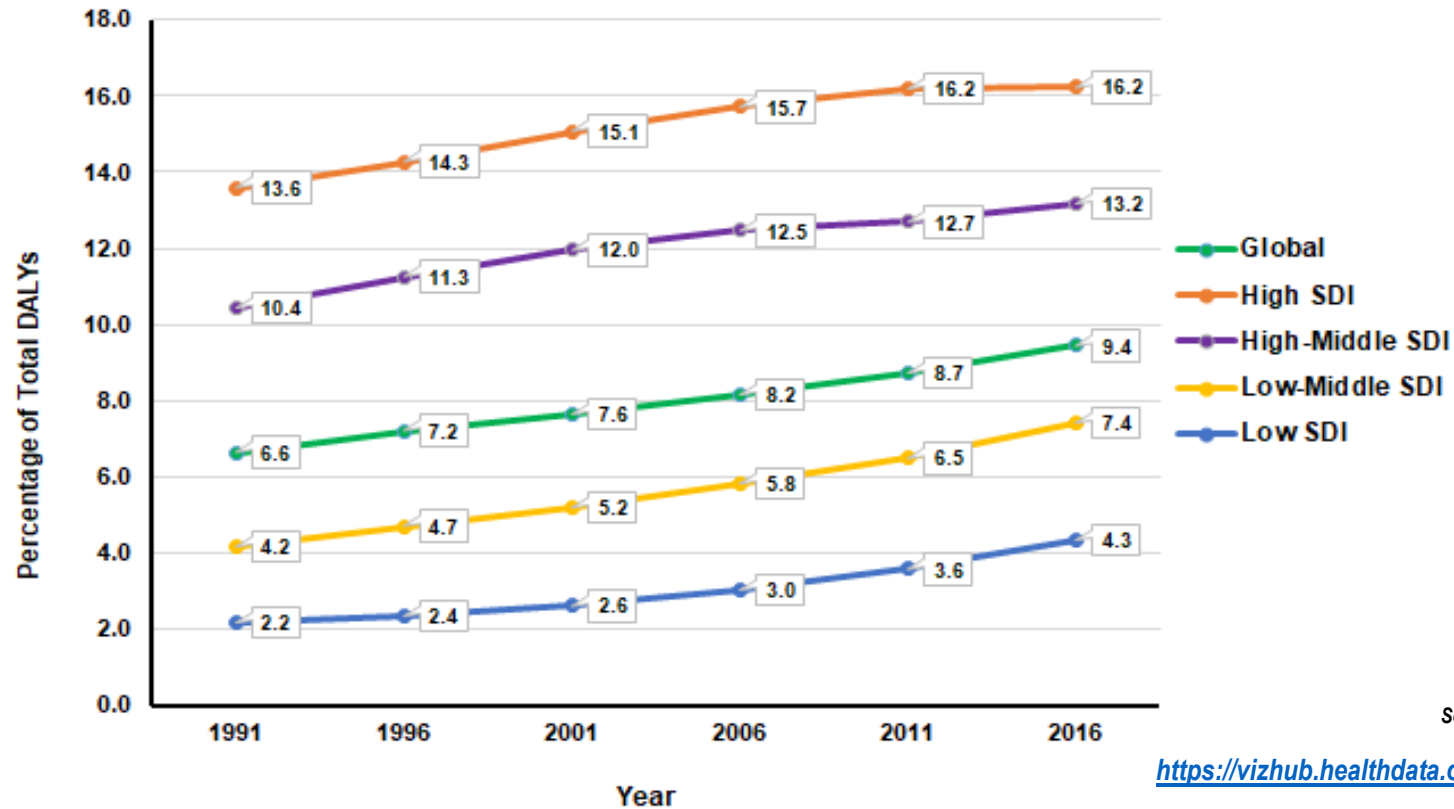
1990	The <i>Caracas Declaration of Mental Health and Human Rights</i> emphasizes the need for developing psychiatric care in close link with primary care through community-based services and advocates the need to anchor in a legal framework the restructuring of the services and to assure proper safeguards for the human and civil rights of patients.	
1995	The <i>World Mental Health Report</i> highlights the large, and growing, burden of mental disorders in low-income countries, their strong association with social determinants, such as poverty, displacement and violence, and the pervasive lack of care and abuse of human rights.	
2001	The WHO's <i>World Health Report</i> focussed on mental health for the first time and presented a public health perspective on mental health along with providing practical guidance to policy makers.	
2001	The WHO's <i>Mental Health Atlas</i> provided, for the first time, comparable data from the majority of countries on some basic indicators on mental health services and systems. Further editions have been published in 2005, 2011, 2014 and 2018.	
2007	The Lancet's first <i>Global Mental Health series</i> emphasizes the large 'treatment gaps' for mental disorders in low- and middle-income countries, and calls to action for scaling up services for mental disorders guided by the evidence of cost-effective interventions and respect for human rights.	
2007	The <i>Movement for Global Mental Health</i> , a virtual alliance of persons affected by mental disorders and practitioners of global mental health is formed to collectively champion the attainment of the call to action	
2007	The <i>United Nations Convention on the Rights of Persons with Disabilities</i> is adopted, and quickly signed and ratified by most countries in the world, coming into force in 2008. The Convention promotes, protects and ensures the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and promotes respect for their inherent dignity.	
2008	The WHO's <i>mhGAP</i> initiative, this flagship programme committed WHO to providing evidence based guidance and assistance to countries for scaling up care for mental, neurological and substance use disorders. Over the next 10 years, the initiative has assisted more than 100 countries.	
2011	The <i>Grand Challenges in Global Mental Health</i> , the most comprehensive priority setting exercise to guide research in global mental health, identifies implementation questions as the leading priority, ushering a wave of new funding for global mental health research.	
2013	The WHO's <i>Mental Health Action Plan</i> adopted with the highest level of political commitment from all 194 ministers of health in the World Health Assembly, and clear objectives, actions, indicators and targets for 8 years.	
2015	The ratification of the <i>United Nations' Sustainable Development Goals</i> recognizes the promotion of mental health, prevention of mental and substance use disorders, and universal health coverage as targets of the health goal.	
2016	The <i>Disease Control Priorities-3</i> publish recommendations for cost-effective packages of care for the prevention, treatment and care of mental disorders which are feasible for delivery through a range of platforms (from the community to specialist) and which can be prioritised as the mental health component of universal health coverage	
2016	The <i>Out of the Shadows</i> meeting and declaration of the World Bank and WHO recognized mental health not just as a global health priority, but as a global development priority.	
2018	The Lancet's <i>Commission on Global Mental Health & Sustainable Development</i> proposes a reframing of mental health to concurrently address the prevention and quality gaps alongside the treatment gap (for both clinical and social care interventions) to reduce the global burden of mental disorders.	

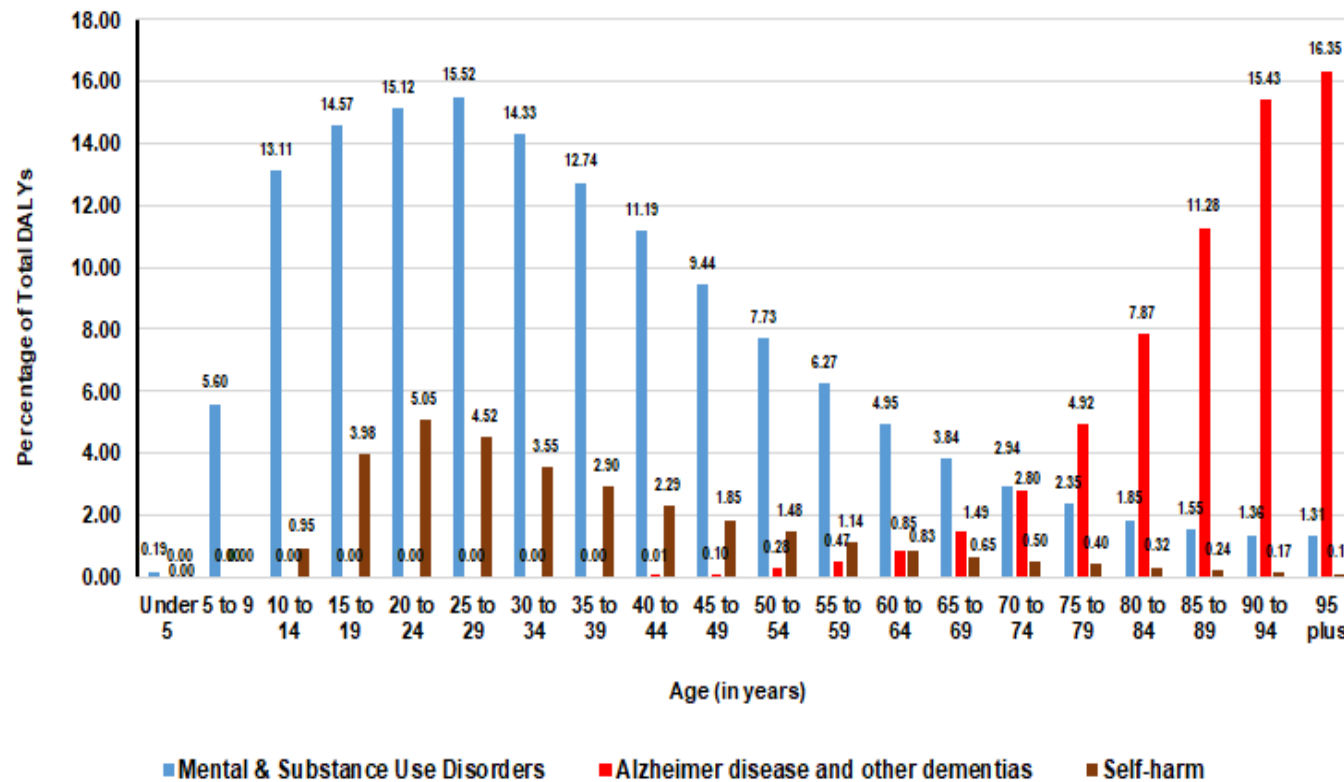
Figure 2: The rising Burden of Mental & Substance Use Disorders, Alzheimer's disease & other Dementias and Suicide (Self-harm) by Socio Demographic Index (SDI) Groups



DALYs= One DALY can be thought of as one lost year of "healthy" life. The sum of these DALYs across the population, or the burden of disease, can be thought of as a measurement of the gap between current health status and an ideal health situation where the entire population lives to an advanced age, free of disease and disability – World Health Organization

Socio-demographic Index (SDI)= A summary measure of a geography's socio-demographic development. It is based on average income per person, educational attainment, and total fertility rate (TFR). - Institute for Health Metrics and Evaluation (IHME)

Figure 3: The Global Burden of Mental & Substance Use Disorders, Alzheimer disease & other dementias and Suicide (Self-harm), (in DALYs) across the life course (2016)



Source: GBD Health Data
Available from:

<https://vizhub.healthdata.org/gbd-compare/>

Figure 4: Torture and incarceration of people with mental disorders



a) View of a rehabilitation center in Indonesia. In 2012 there was no actual housing and many of the residents were confined in a large cage enclosed pavilion without sanitation facilities, men and woman living separated by a wire wall.

Photo credits: Andrea Star Reese



b) Villagers chaining a 32-year-old mentally ill person apparently behaving in a threatening manner, to a tree for eight days, at Balurghat in West Bengal, India.

Photo credits: Press Trust of India (PTI)



c) A view of a psychiatric hospital ward in Albania

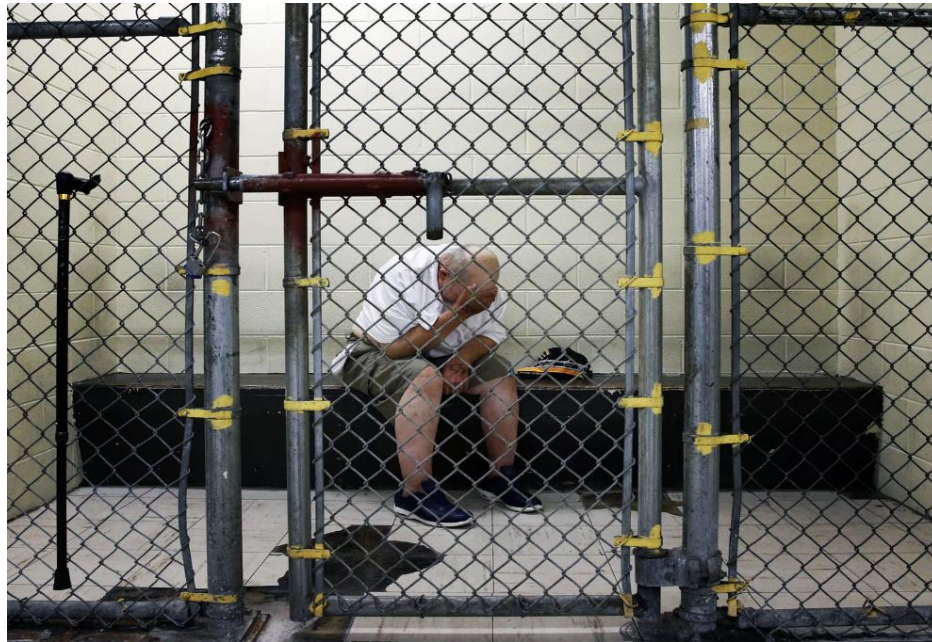
Photo credits: Harrie Timmermans/Global Initiative on Psychiatry



d) A mentally-ill inmate abused by ill-trained U.S. Prison Staff

Source: The Gospel Herald. 2017

Photo credits: Human Rights Watch, 2013

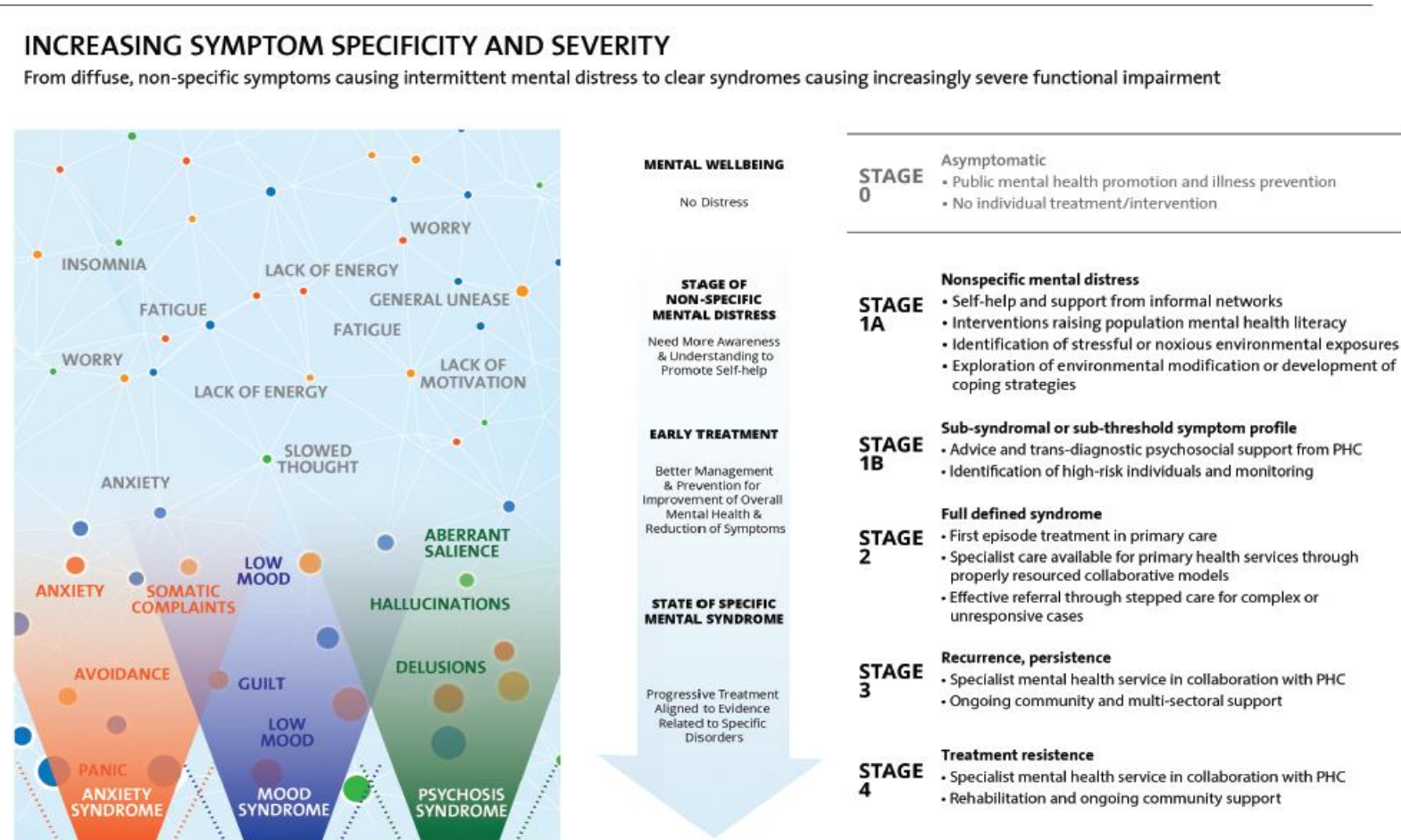


e) Nearly half of the people executed nationwide between 2000-2015 in America had been diagnosed with a mental illness and/or substance use disorder.

Source: The Guardian 31 Mar 2018

Photograph credits: Charles Rex Arbogast/AP

Figure 5: A staging approach to the classification and treatment of mental disorders



Acknowledgement: Adapted from McGorry P et al, 2014 & McGorry P, van Os J, 2013^{275,276}

Figure 6: Social determinants of Global Mental Health and the Sustainable Development Goals

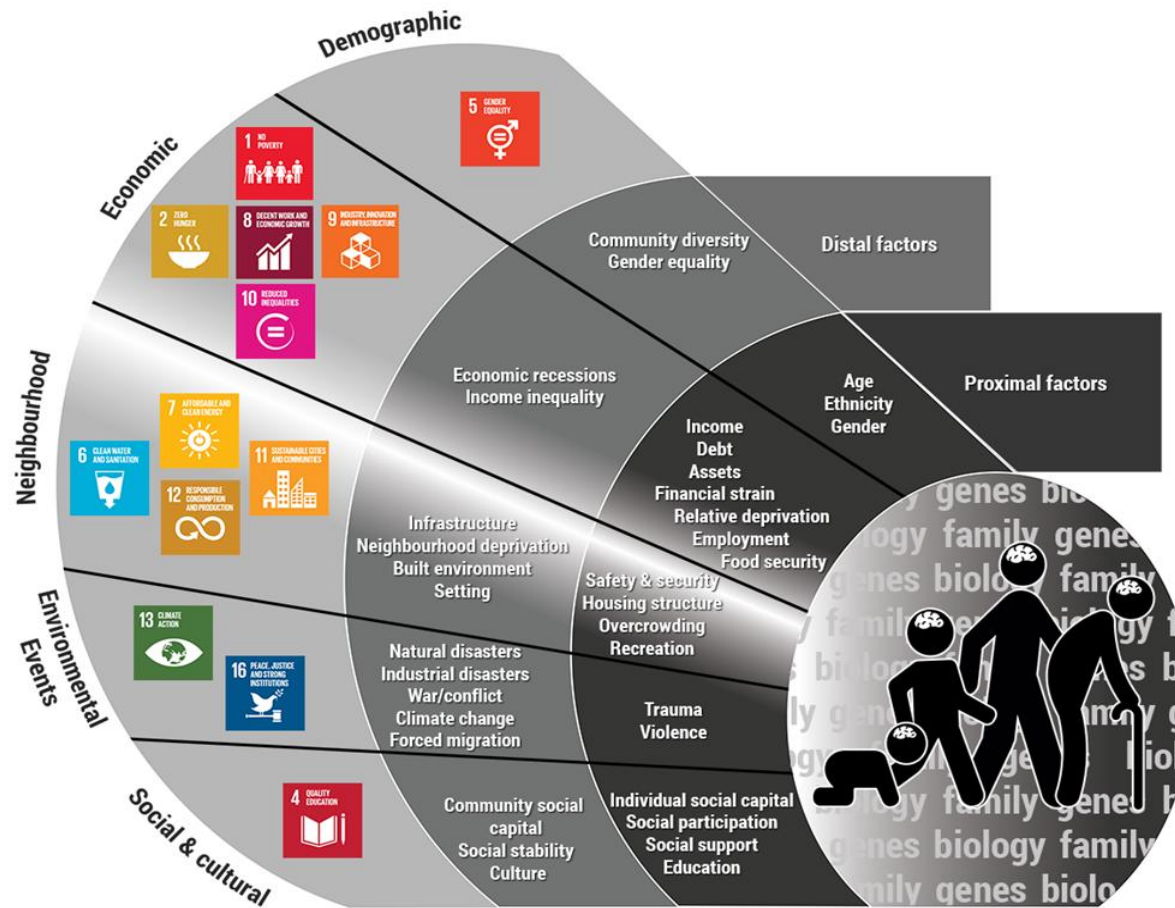
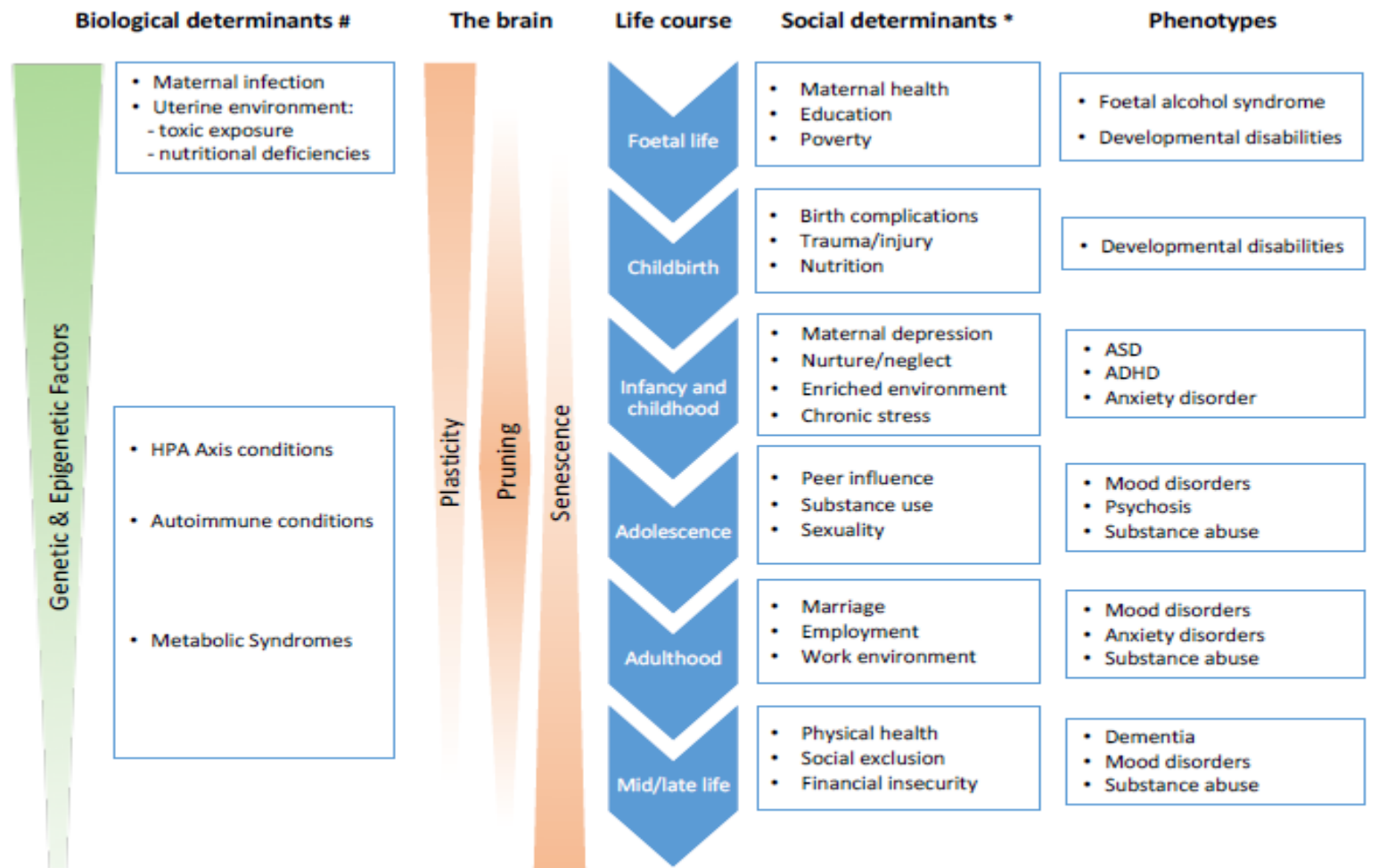


Figure 7: Biological and social determinants of neurodevelopment across the life course



Examples of biological (#) and social (*) determinants that can influence mental health outcomes across the life course. These can operate at different points in life, and can interact, to produce specific phenotypes.

ASD=Autism Spectrum Disorders
ADHD=Attention deficit hyperactivity disorder

Figure 8: Mental health service components relevant to low, medium and high resource settings²⁷⁷

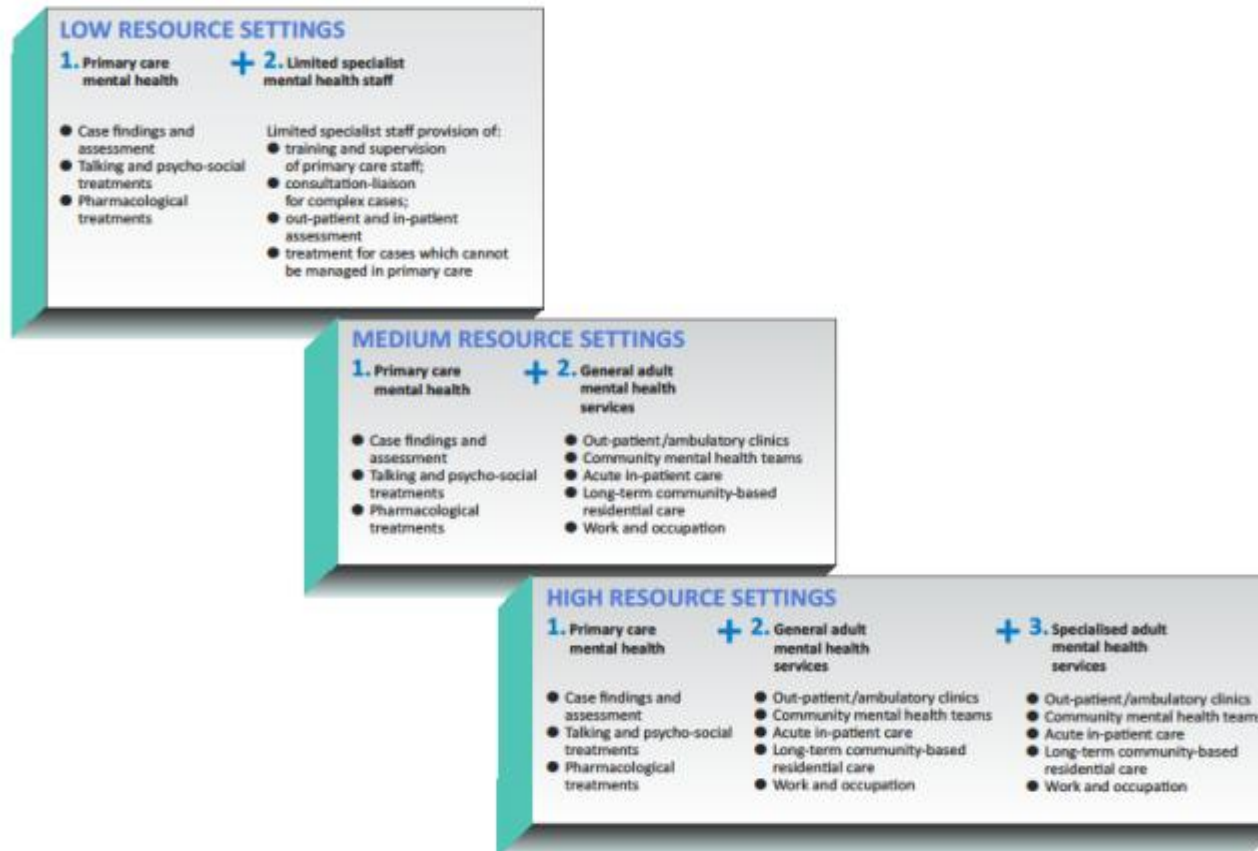


Figure 9: Protective and risk factors in the early life course

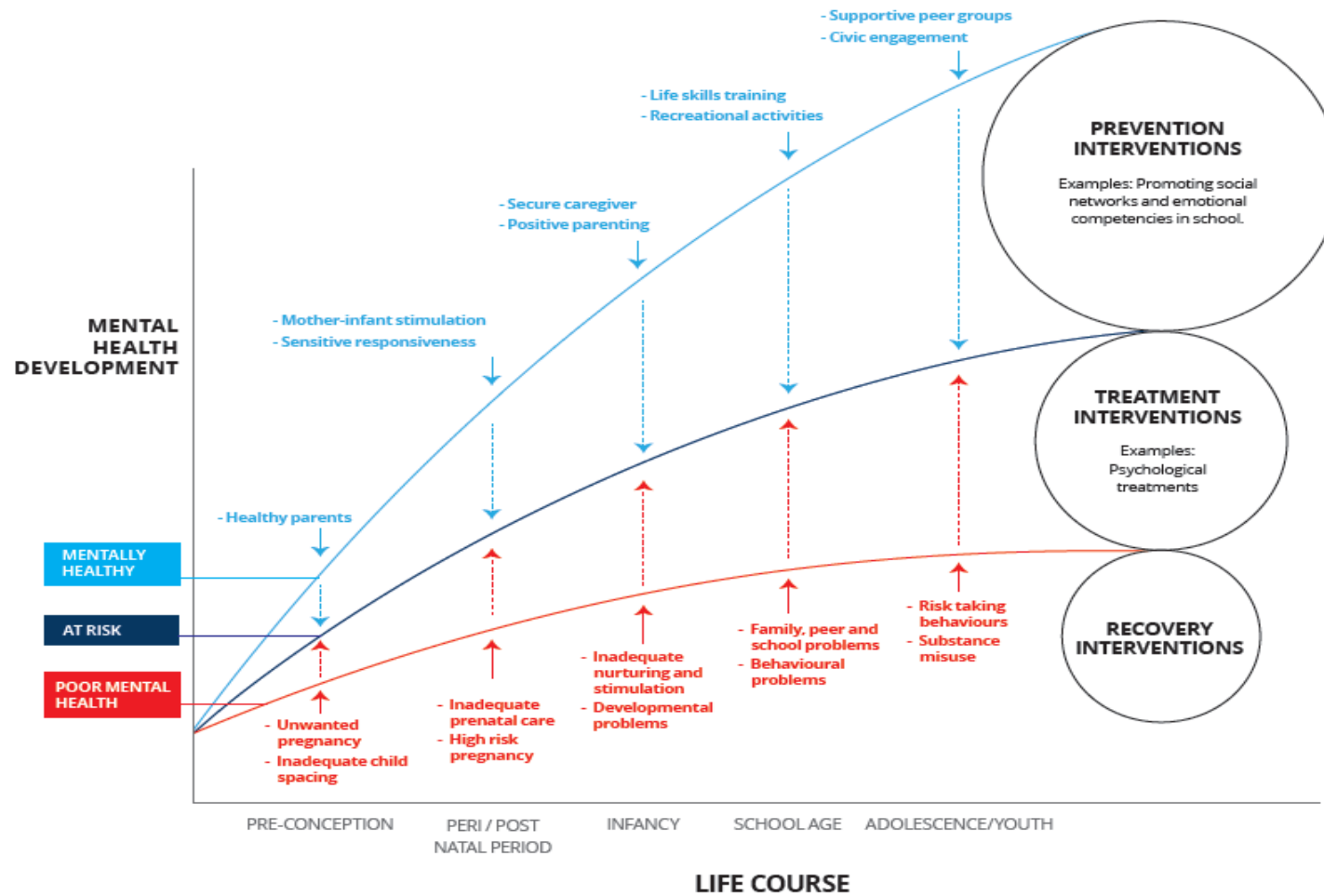


Table 1: Priority actions for scaling up mental health care in low, middle and high resource settings

Action area	Low resource setting	Middle resource setting	High resource setting
Policy/plan/law	<p>Appointment of a senior official or minister and a cross-ministry multi-stakeholder working group at national and subnational levels</p> <p>Inclusion of mental health within the national SDG plans and in UHC</p> <p>Development and implementation of costed and budgeted plans for scaling up mental health care</p> <p>Review and repeal of all laws which are discriminatory against people with mental disorders</p>	<p>All actions listed for low resource setting, if not already completed</p> <p>Development/revision of mental health law and its implementation</p> <p>Development and implementation of strategies for specific areas (e.g. developmental disorders, adolescent mental health, suicide prevention, substance abuse, dementia)</p>	<p>All actions listed for low and middle resource setting, if not already completed</p> <p>Full implementation of the principle of parity in national health plans and in insurance coverage</p>
Primary health care	<p>Training of community and primary health care providers in identification and management of priority mental disorders</p> <p>Regular provision of essential medicines for mental disorders</p> <p>Training of primary health care providers in basic psychosocial interventions</p>	<p>All actions listed for low resource setting, if not already completed</p> <p>Full geographic coverage of delivery of mental health care within primary care</p> <p>Inclusion of mental health indicators within the integrated health information system</p>	<p>All actions listed for low and middle resource setting, if not already completed</p> <p>Establishment of full staged care model of treatment for mental disorders</p>
Secondary health care	<p>Establishment of outpatient clinics for mental health care</p> <p>Establishment of inpatient care within general hospitals</p> <p>Strengthening of support and supervision to primary care health providers</p> <p>Integration of mental health care within other priority programmes (e.g. maternal and child health, HIV)</p>	<p>All actions listed for low resource setting, if not already completed</p> <p>Training of providers in psychosocial interventions</p> <p>Strengthening of referral pathways between primary and secondary care using staged care model</p>	<p>All actions listed for low and middle resource setting, if not already completed</p> <p>Establishment of community outreach teams for severe mental disorders</p>

Tertiary (specialist) health care	Improvement of conditions in mental hospitals	All actions listed for low resource setting, if not already completed	All actions listed for low and middle resource setting, if not already completed
	Shifting of specialist care from mental hospitals to general hospitals	Development of multidisciplinary teams for mental health care	Strengthening of services incorporating the full range of mental health services (e.g. community based long stay facilities, intensive community outreach teams)
	Training and retaining specialists within health care system	Implementation of balanced care model	
	Development of consultation-liaison mental health care	Building capacity for specialized psychosocial interventions	
		Integration of health and social care for mental disorders	
		Establishment of specialty clinics (e.g. child mental health, older adults' services, substance use disorders services, forensic services)	

Table 2: Actions for protecting mental health and wellbeing within the SDG framework

Goals	Actions for protecting mental health
1. End poverty in all its forms everywhere	<ul style="list-style-type: none"> • Directing poverty alleviation interventions to people with mental disorders • Providing welfare payments (basic income grant) for those in extreme poverty • Financial protection to people and families with mental disorders
2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture	<ul style="list-style-type: none"> • Ensuring adequate nutrition to all children and pregnant women for optimum brain development
3. Ensure healthy lives and promote well-being for all at all ages	<ul style="list-style-type: none"> • Integrating mental health promotion, prevention and care across the life-course within the context of national efforts to achieve universal health coverage • Shifting mental health care from institutions to community platforms • Developing and implementing a suicide prevention strategy • Decreasing harmful use of alcohol and psychoactive substances • Identifying and treating substance use disorders
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	<ul style="list-style-type: none"> • Early child stimulation and school readiness programmes • Integrating life skills in school curricula • Identifying and assisting education of children with developmental disabilities early • Tailoring education to the abilities and interests of children • Providing lifelong learning to people with mental disorders to assist recovery • Providing cognitive stimulation and learning to older adults to prevent and manage dementia
5. Achieve gender equality and empower all women and girls	<ul style="list-style-type: none"> • Preventing violence against women and children • Ensure that mental health services are gender-sensitive and specifically geared to address mental health problems in women, such as maternal depression and the consequences of violence • Increasing support for caregivers, who more frequently are women
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	<ul style="list-style-type: none"> • Implementing mental health in the workplace programs • Providing social and occupational interventions and support for people with mental disorders and their families • Assist workforce affected by changing needs of industries, for example due to the growing role of technology
10. Reduce inequality within and among countries	<ul style="list-style-type: none"> • Providing welfare payments (basic income grant) for those in extreme poverty • Reducing stigma and discrimination for people and families with mental disorders • Promote and increase opportunities for social inclusion for persons with mental disorders
11. Make cities and human settlements inclusive, safe, resilient and sustainable	<ul style="list-style-type: none"> • Creating built environments which minimize the social determinants of poor mental health • Safe use of chemicals including pesticides to prevent neurotoxicity and self-harm and suicides
13. Take urgent action to combat climate change and its impacts	<ul style="list-style-type: none"> • Integrating psychosocial support in all humanitarian assistance related to natural disasters and other consequences of climate change • Add the voice of the mental health community to highlight the importance of climate change action, because of its impact on mental health
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	<ul style="list-style-type: none"> • Developing and implementing progressive laws related to mental health and human rights • Prevent the incarceration of persons with mental disorders in institutions (e.g. prisons, child care institutions) • Implementing mental health programs in prisons
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development	<ul style="list-style-type: none"> • Demonstrate the impact of mental health interventions on work of actors in other sectors related to SDG • Develop and sustain a Partnership to transform mental health globally

Table 3: Research priorities for global mental health and sustainable development

Grand Challenges in Global Mental Health Goals ³⁴	Examples of priority mental health research in the SDG framework
Goal A Identify root causes, risk and protective factors	<ul style="list-style-type: none"> • Understand how genetic, neurodevelopmental and social risk and protective factors interact across the life course influencing mental health and mental disorders • Understand the influence of gender on mental health and disorders across the life course • Discover biomarkers for mental health and disorders
Goal B Advance prevention and implementation of early interventions	<ul style="list-style-type: none"> • Understand early stages in the development of mental disorders • Identify novel interventions for prevention and early interventions targeting key determinants across the life course • Identify sensitive and specific tools for early detection and better diagnosis.
Goal C Improve treatments and expand access to care	<ul style="list-style-type: none"> • Identify more effective pharmacological, psychosocial and social treatment interventions including those that are trans-diagnostic • Develop better decision-making algorithms for diagnosis and for person-centred care (precision medicine) • Design, evaluate and compare delivery mechanisms for care ensuring equity and quality • Elaborate and test approaches for supported decision-making for mental health care for people with severe mental disorders
Goal D Raise awareness of the global burden	<ul style="list-style-type: none"> • Develop, evaluate and disseminate effective methods for communicating the burden of mental disorders • Develop, evaluate and disseminate effective methods to increase the demand for mental health care
Goal E Build human resource capacity	<ul style="list-style-type: none"> • Identifying skills needed by non-specialist care providers to deliver mental health care, and feasible and scalable ways for training, supporting and supervising them • Innovations in synergising and integrating services delivered by human and digital modes
Goal F Transform health-system and policy responses	<ul style="list-style-type: none"> • Identify most feasible and effective ways to integrate mental health within universal health coverage in a variety of health systems • Implement a comprehensive monitoring system to assess the determinants of mental health and the inputs and outputs of mental health services • Evaluate the feasibility and impact of innovative financing mechanisms for mental health care e.g. social impact bonds and insurance schemes

*The list of examples is intended to be illustrative rather than exhaustive.

Table 4: Indicators for mental health and sustainable development

Domain/sub-domain	Proposed indicators	Data source and availability
A. Mental health determinants		
A1. Demographic	<ul style="list-style-type: none"> Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex [SDG 5.1.1] 	<ul style="list-style-type: none"> World Bank & OECD; Indicator under development
A2. Economic	<ul style="list-style-type: none"> Proportion of population below the international poverty line (%), by sex, age, employment status and geographical location (urban/rural) [SDG 1.1.1] Unemployment rate, by sex, age and persons with disabilities (%) [SDG 8.5.2] Income inequality (Gini index) 	<ul style="list-style-type: none"> World Bank (134 countries) ILO (169 countries) World Bank (100 countries)
A3. Neighbourhood	<ul style="list-style-type: none"> Proportion of urban population living in slums, informal settlements or inadequate housing [SDG 11.1.1.] Proportion of population that feel safe walking alone around the area they live [SDG 16.1.4] 	<ul style="list-style-type: none"> UN Habitat (at least all LMIC) UNODC (63 countries between 2000-2010)
A4. Environmental*	<ul style="list-style-type: none"> Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months [SDG 16.1.3] Proportion of children aged 1–17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month [SDG 16.2.1] 	<ul style="list-style-type: none"> UNODC (33 countries since 2010; physical and sexual violence only) UNICEF (73 countries)
A5. Social/cultural*	<ul style="list-style-type: none"> Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex [SDG 4.1.1] 	<ul style="list-style-type: none"> UNESCO (79 countries)
B. Mental health systems and services		
B1. Governance	<ul style="list-style-type: none"> Existence of a national policy or plan for mental health that is in line with international and regional human rights instruments (MHAP 1.1) 	<ul style="list-style-type: none"> WHO Mental Health Atlas (158 countries in 2014)
B2. Financing	<ul style="list-style-type: none"> Government expenditure on mental health (US\$) 	<ul style="list-style-type: none"> WHO Mental Health Atlas (41 countries in 2014)
B3. Workforce capacity	<ul style="list-style-type: none"> Mental health workers (rate per 100,000 population) 	<ul style="list-style-type: none"> WHO Mental Health Atlas (78 countries in 2014)
B4. Service availability and provision	<ul style="list-style-type: none"> Total mental health beds (rate per 100,000 population), disaggregated by type of inpatient care facility including mental hospitals Mental health outpatient visits (rate per 100,000 population) 	<ul style="list-style-type: none"> WHO Mental Health Atlas (154 / 80 countries in 2014)
B5. Service access / coverage*	<ul style="list-style-type: none"> Proportion of persons with a severe mental disorder who are using services (MHAP 2.1) 	<ul style="list-style-type: none"> WHO Mental Health Atlas (73 countries in 2014)
B6. Service quality*	<ul style="list-style-type: none"> Proportion of discharged in-patients with severe mental disorder followed-up in the community within one month 	<ul style="list-style-type: none"> WHO Mental Health Atlas (43 countries in 2014)
C. Mental health outcomes and risk protection		
C1. Health, social and economic outcomes*	<ul style="list-style-type: none"> Suicide mortality (rate per 100,000 population) [SDG 3.4.2] Harmful use of alcohol (litres of pure alcohol per capita) [SDG 3.5.2] Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex (%) [SDG 4.2.1] Subjective well-being (ladder score, 0-10) 	<ul style="list-style-type: none"> WHO (171 countries) WHO GISAH (190 countries) UNICEF (58 LMIC) World Happiness Report (153 countries in 2014)
C2. Social and financial risk protection	<ul style="list-style-type: none"> Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities [SDG 1.3.1] 	<ul style="list-style-type: none"> ILO (183 countries) WHO and World Bank (120 countries)

	<ul style="list-style-type: none"> Proportion of the population with large household expenditures on health as a share of total household expenditure or income (%) [SDG 3.8.2] 	by end-2017) ; new mental health data needed
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Note: Indicators in red are already agreed SDG indicators (2016-2030); Indicators in orange are those already agreed too in the WHO Mental Health Action Plan (2013-2020)

**All indicators for these targets should be disaggregated by sex and age wherever possible*

References

1. Beaglehole R, Bonita R. What is global health? *Global Health Action* 2010; **3**(10.3402): 5142.
2. Patel V, Prince M. Global mental health: a new global health field comes of age. *Jama* 2010; **303**(19): 1976-7.
3. The Lancet Global Mental Health Group. Scale up services for mental disorders: a call for action. *The Lancet* 2007; **370**(9594): 1241-52.
4. World Health Organization. Planning and budgeting to deliver services for mental health. WHO Mental Health Policy and Service Guidance Package. Geneva: WHO; 2003.
5. Pathare S, Brazinova A, Levav I. Care gap: A comprehensive measure to quantify unmet needs in mental health. *Epidemiology and psychiatric sciences* 2018: 1-5. doi:10.1017/S2045796018000100.
6. Kleinman A. Anthropology and psychiatry. The role of culture in cross-cultural research on illness. *Br J Psychiatry* 1987; **151**: 447-54.
7. Littlewood R. From categories to contexts: a decade of the 'new cross-cultural psychiatry'. *Br J Psychiatry* 1990; **156**: 308-27.
8. Engel GL. The need for a new medical model: a challenge for biomedicine. *Science* 1977; **196**(4286): 129-36.
9. Kleinman A, Das V, Lock MM. Social Suffering. Berkeley: University of California Press; 1997.
10. Volkow ND, Poznyak V, Saxena S, Gerra G. Drug use disorders: impact of a public health rather than a criminal justice approach. *World Psychiatry* 2017; **16**(2): 213-4.
11. Ferrannini L, Ghio L, Gibertoni D, et al. Thirty Five Years of Community Psychiatry In Italy. *J Nerv Ment Dis* 2014; **202**: 432-9.
12. Lambo TA. A Form of Social Psychiatry in Africa (with special reference to General Features of Psychotherapy with Africans). *World Mental Health* 1961; **13**(4): 190-203.
13. Patel V, Araya R, Chatterjee S, et al. Treatment and prevention of mental disorders in low-income and middle-income countries. *The Lancet* 2007; **370**(9591): 991-1005.
14. Rose D. Collaborative research between users and professionals: peaks and pitfalls. *The Psychiatrist* 2003; **27**(11): 404-6.
15. Davidson L, Lawless MS, Leary F. Concepts of recovery: competing or complementary? *Current opinion in psychiatry* 2005; **18**(6): 664-7.
16. Lund C, Breen A, Flisher AJ, et al. Poverty and common mental disorders in low and middle income countries: A systematic review. *Social Science & Medicine* 2010; **71**(3): 517-28.
17. Institute for Health Metrics and Evaluation (IHME). GBD Research Tools. 2018: [Cited 24 Apr 2018]. Available from: <https://vizhub.healthdata.org/gbd-compare/>.
18. Vigo D, Thornicroft G, Atun R. Estimating the true global burden of mental illness. *The Lancet Psychiatry* 2016; **3**(2): 171-8.
19. Charlson FJ, Baxter AJ, Dua T, Degenhardt L, Whiteford HA, Vos T. Excess mortality from mental, neurological and substance use disorders in the Global Burden of Disease Study 2010. *Epidemiology and psychiatric sciences* 2015; **24**(2): 121-40.
20. World Health Organisation. Mental Health Atlas. Geneva: World Health Organization; 2005.
21. Wang PS, Aguilar-Gaxiola S, Alonso J, et al. Use of mental health services for anxiety, mood and substance disorders in 17 countries in the WHO world mental health surveys. *The Lancet* 2007; **370**(9590): 841-50.
22. Patel V, Kleinman A, Saraceno B. Protecting the human rights of people with mental disorders: a call to action for global mental health In: Dudley M, Silove D, Gale F, eds. *Mental Health & Human Rights*. Oxford. Oxford University Press; 2012.
23. Gilbert BJ, Patel V, Farmer PE, Lu C. Assessing development assistance for mental health in developing countries: 2007-2013. *PLoS medicine* 2015; **12**(6): e1001834.

24. World Health Organization. mhGAP: Mental Health Gap Action Programme: scaling up care for mental, neurological and substance use disorders. Geneva: WHO Press, World Health Organization; 2008.
25. World Health Organization. Mental Health Atlas 2014. Geneva: WHO Press, World Health Organization; 2015.
26. World Health Organization. WHO QualityRights Tool Kit-Assessing and improving quality and human rights in mental health and social care facilities. Geneva: World Health Organization, 2012.
27. World Health Organization. Mental Health Action Plan 2013-2020. Geneva: WHO Press, 2013.
28. Patel V, Chisholm D, Dua T, Laxminarayan R, Medina-Mora ME, editors. Mental, Neurological, and Substance Use Disorders. Disease Control Priorities. 3 ed. Washington, DC. The World Bank; 2015.
29. Mateus MD, Mari JJ, Delgado PGG, et al. The mental health system in Brazil: Policies and future challenges. *International Journal of Mental Health Systems* 2008; **2**: 12.
30. Patel V. Legislating the Right to Care for Mental Illness. *Economic & Political Weekly* 2013; **48**(9).
31. Patel V, Xiao S, Chen H, et al. The magnitude of and health system responses to the mental health treatment gap in adults in India and China. *The Lancet* 2016; **388**(10063): 3074-84.
32. Clark DM, Layard R, Smithies R, Richards DA, Suckling R, Wright B. Improving access to psychological therapy: Initial evaluation of two UK demonstration sites. *Behaviour research and therapy* 2009; **47**(11): 910-20.
33. World Health Organisation. Building Back Better. Sustainable mental health care after emergencies. Geneva: World Health Organization; 2013.
34. Collins PY, Patel V, Joestl SS, March D, Insel TR, Daar AS. Grand challenges in global mental health: A consortium of researchers, advocates and clinicians announces here research priorities for improving the lives of people with mental illness around the world, and calls for urgent action and investment. *Nature* 2011; **475**(7354): 27-30.
35. Liu Z, Huang Y, Lv P, et al. The China Mental Health Survey: II. Design and field procedures. *Social psychiatry and psychiatric epidemiology* 2016; **51**(11): 1547-57.
36. Gururaj G, Varghese M, Benegal V, et al. National Mental Health Survey of India, 2015-16: Prevalence, patterns and outcomes. Bengaluru: National Institute of Mental Health and Neuro Sciences (NIMHANS); 2016.
37. Thornicroft G, Chatterji S, Evans-Lacko S, et al. Undertreatment of people with major depressive disorder in 21 countries. *Br J Psychiatry* 2017; **210**(2): 119-24. .
38. Lund C. Mental health and human rights in South Africa: the hidden humanitarian crisis. *South African Journal on Human Rights* 2016; **32**(3): 403-5.
39. Charlson F, Dieleman J, Singh L, Whiteford H. Donor Financing for Global Mental Health, 1995-2015: An Assessment of Trends, Channels, and Alignment with the Disease Burden. *PloS ONE* 2012; **1**(e0169384).
40. Lu C, Li Z, Patel V. Global child and adolescent mental health: The orphan of development assistance for health. *PLoS medicine* 2018; **15**(3): e1002524.
41. Bloom DE, Cafiero ET, Jané-Llopis E, et al. The Global Economic Burden of Non-communicable Diseases. Geneva: World Economic Forum; 2011.
42. Leucht S, Hierl S, Kissling W, Dold M, Davis JM. Putting the efficacy of psychiatric and general medicine medication into perspective: review of meta-analyses. *Br J Psychiatry* 2012; **200**(2): 97-106.
43. Jorm AF, Patten SB, Brugha TS, Mojtabai R. Has increased provision of treatment reduced the prevalence of common mental disorders? Review of the evidence from four countries. *World Psychiatry* 2017; **16**(1): 90-9.
44. Berry HL, Waite TD, Dear KBG, Capon AG, Murray V. The case for systems thinking about climate change and mental health. *Nature Climate Change* 2018; **8**(4): 282-90.

45. Patel V, Burns JK, Dhingra M, Tarver L, Kohrt BA, Lund C. Income inequality and depression: a systematic review and meta-analysis of the association and a scoping review of mechanisms. *World Psychiatry* 2018; **17**(1): 76-89.
46. Summerfield D. Afterword: against "global mental health". *Transcultural psychiatry* 2012; **49**(3-4): 519-30.
47. Freeman MC, Kolappa K, de Almeida JMC, et al. Reversing hard won victories in the name of human rights: a critique of the General Comment on Article 12 of the UN Convention on the Rights of Persons with Disabilities. *The Lancet Psychiatry* 2015; **2**(9): 844-50.
48. World Health Organization. Time to deliver: report of the WHO Independent High-level Commission on Noncommunicable Diseases. Geneva: WHO; 2018. Licence: CC BY-NC-SA 3.0 IGO.
49. Flabbi L, Gatti, Roberta V. A primer on human capital (English). Policy Research working paper; no. WPS 8309. Washington, D.C: World Bank Group; 2018.
50. Keyes CL, Dhingra SS, Simoes EJ. Change in level of positive mental health as a predictor of future risk of mental illness. *American journal of public health* 2010; **100**(12): 2366-71.
51. Delude CM. Deep phenotyping: The details of disease. *Nature* 2015; **527**(7576): S14-S5.
52. Galderisi S, Heinz A, Kastrup M, Beezhold J, Sartorius N. Toward a new definition of mental health. *World Psychiatry* 2015; **14**(2): 231-3.
53. Helliwell J, Layard R, Sachs J. World Happiness Report 2018. New York: Sustainable Development Solutions Network; 2018.
54. ONS. Measuring National Well-Being: Office for National Statistics, 2014.
55. Sen A. Development as freedom. Oxford: Oxford University Press; 1999.
56. Wilkinson RG, Pickett K. The spirit level: Why more equal societies almost always do better. London: Allen Lane; 2009.
57. WHO. WHO Commission on Social determinants of health: WHO, 2010.
58. Clark LA, Cuthbert B, Lewis-Fernandez R, Narrow WE, Reed GM. Three Approaches to Understanding and Classifying Mental Disorder: ICD-11, DSM-5, and the National Institute of Mental Health's Research Domain Criteria (RDoC). *Psychological science in the public interest : a journal of the American Psychological Society* 2017; **18**(2): 72-145.
59. Kendler KS. DSM issues: incorporation of biological tests, avoidance of reification, and an approach to the "box canyon problem". *The American journal of psychiatry* 2014; **171**(12): 1248-50.
60. Gandal MJ, Haney JR, Parikshak NN, et al. Shared molecular neuropathology across major psychiatric disorders parallels polygenic overlap. *Science (New York, NY)* 2018; **359**(6376): 693-7.
61. Kendler KS. What psychiatric genetics has taught us about the nature of psychiatric illness and what is left to learn. *Molecular psychiatry* 2013; **18**(10): 1058-66.
62. St Pourcain B, Robinson EB, Anttila V, et al. ASD and schizophrenia show distinct developmental profiles in common genetic overlap with population-based social communication difficulties. *Molecular psychiatry* 2018; **23**(2): 263-70.
63. National Institute for Mental Health (NIMH) [Internet]. Research Domain Criteria. NIMH; 2017.
64. Felger JC, Lotrich FE. Inflammatory cytokines in depression: neurobiological mechanisms and therapeutic implications. *Neuroscience* 2013; **246**: 199-229.
65. Bolton P, Tang A. An alternative approach to cross-cultural function assessment. *Social psychiatry and psychiatric epidemiology* 2002; **37**(11): 537-43.
66. McGorry P, van Os J. Redeeming diagnosis in psychiatry: timing versus specificity. *The Lancet* 2013; **381**(9863): 343-5.
67. Berk M, Post R, Ratheesh A, et al. Staging in bipolar disorder: from theoretical framework to clinical utility. *World Psychiatry* 2017; **16**(3): 236-44.
68. Fusar-Poli P, McGorry PD, Kane JM. Improving outcomes of first-episode psychosis: an overview. *World Psychiatry* 2017; **16**(3): 251-65.
69. McGorry PD. Early intervention in psychosis: obvious, effective, overdue. *J Nerv Ment Dis* 2015; **203**(5): 310-8.

70. Das-Munshi J, Goldberg D, Bebbington PE, et al. Public health significance of mixed anxiety and depression: beyond current classification. *Br J Psychiatry* 2008; **192**(3): 171-7.
71. Knowledge Translation Unit, University of Cape Town Lung Institute, British Medical Journal. Practical Approach to Care Kit (PACK): BMJ Publishing Group; 2018.
72. Bryant RA, Schafer A, Dawson KS, et al. Effectiveness of a brief behavioural intervention on psychological distress among women with a history of gender-based violence in urban Kenya: A randomised clinical trial. *PLoS Med*, 2017; **14**(8): e1002371.
73. Jacob KS, Patel V. Classification of mental disorders: a global mental health perspective. *Lancet (London, England)* 2014; **383**(9926): 1433-5.
74. Patel V. Why mental health matters to global health. *Transcultural psychiatry* 2014; **51**(6): 777-89.
75. Haroz EE, Ritchey M, Bass JK, et al. How is depression experienced around the world? A systematic review of qualitative literature. *Soc Sci Med* 2017; **183**: 151-62.
76. Singla DR, Kohrt BA, Murray LK, Anand A, Chorpita BF, Patel V. Psychological Treatments for the World: Lessons from Low- and Middle-Income Countries. *Annu Rev Clin Psychol* 2017; **13**: 149-81.
77. Bolton P, Bass J, Neugebauer R, et al. Group interpersonal psychotherapy for depression in rural Uganda: a randomized controlled trial. *Jama* 2003; **289**(23): 3117-24.
78. Leamy M, Bird V, Le Boutillier C, Williams J, Slade M. Conceptual framework for personal recovery in mental health: systematic review and narrative synthesis. *Br J Psychiatry* 2011; **199**(6): 445-52.
79. Mark L, Hatzenbuehler JC, G PaB. Link, Stigma as a Fundamental Cause of Population Health Inequalities. *American journal of public health* 2013; **103**(5): 813–21.
80. Pathare S, Funk M. QualityRights in Gujarat IN PRESS. 2017.
81. WHO and Calouste Gulbenkian Foundation. Social determinants of mental health. Geneva: WHO; 2014.
82. Lund C, Brooke-Sumner C, Baingana F, et al. Social determinants of mental disorders and the Sustainable Development Goals: a systematic review of reviews. *The lancet Psychiatry* 2018; **5**(4): 357-69.
83. Whiteford HA, Degenhardt L, Rehm J, et al. Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *Lancet (London, England)* 2013; **382**(9904): 1575-86.
84. Chandra PS, Satyanarayana VA. Gender disadvantage and common mental disorders in women. *International Review of Psychiatry* 2010; **22**(5): 513-24.
85. Veling W. Ethnic minority position and risk for psychotic disorders. *Current opinion in psychiatry* 2013; **26**(2): 166-71.
86. Yoshikawa H, Aber JL, Beardslee WR. The effects of poverty on the mental, emotional, and behavioral health of children and youth: implications for prevention. *The American psychologist* 2012; **67**(4): 272-84.
87. Gilman SE. Childhood socioeconomic status, life course pathways and adult mental health. *Int J Epidemiol* 2002; **31**(2): 403-4.
88. Kwok W. Is there evidence that social class at birth increases risk of psychosis? A systematic review. *The International journal of social psychiatry* 2014; **60**(8): 801-8.
89. Dohrenwend BP, Levav I, Shrout PE, et al. Socioeconomic status and psychiatric disorders: the causation-selection issue. *Science (New York, NY)* 1992; **255**(5047): 946-52.
90. Savell E, Fooks G, Gilmore AB. How does the alcohol industry attempt to influence marketing regulations? A systematic review. *Addiction (Abingdon, England)* 2016; **111**(1): 18-32.
91. Goldmann E, Galea S. Mental health consequences of disasters. *Annual review of public health* 2014; **35**: 169-83.

92. Kertes DA, Bhatt SS, Kamin HS, Hughes DA, Rodney NC, Mulligan CJ. BDNF methylation in mothers and newborns is associated with maternal exposure to war trauma. *Clin Epigenetics* 2017; **9**: 68.
93. E. ClipSE Collaborative Members, Brayne C, Ince PG, et al. Education, the brain and dementia: neuroprotection or compensation? *Brain* 2010; **133**(Pt 8): 2210-6.
94. Esch P, Bocquet V, Pull C, et al. The downward spiral of mental disorders and educational attainment: A systematic review on early school leaving. *BMC Psychiatry* 2014; **14**.
95. Ehsan AM, De Silva MJ. Social capital and common mental disorder: a systematic review. *Journal of epidemiology and community health* 2015; **69**(10): 1021-8.
96. Bhugra D, Becker MA. Migration, cultural bereavement and cultural identity. *World Psychiatry* 2005; **4**(1): 18-24.
97. Kessler RC, McLaughlin KA, Green JG, et al. Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. *Br J Psychiatry* 2010; **197**(5): 378-85.
98. Singer M, Bulled N, Ostrach B, Mendenhall E. Syndemics and the biosocial conception of health. *Lancet (London, England)* 2017; **389**(10072): 941-50.
99. Kleinman A, Das V, Lock MM, editors. Social suffering. Berkeley: University of California Press; 2003.
100. McCarroll SA, Feng G, Hyman SE. Genome-scale neurogenetics: methodology and meaning. *Nature neuroscience* 2014; **17**(6): 756-63.
101. Sullivan PF, Daly MJ, O'Donovan M. Genetic architectures of psychiatric disorders: the emerging picture and its implications. *Nature reviews Genetics* 2012; **13**(8): 537-51.
102. Breen G, Li Q, Roth BL, et al. Translating genome-wide association findings into new therapeutics for psychiatry. *Nature neuroscience* 2016; **19**(11): 1392-6.
103. Sonuga-Barke EJS, Kennedy M, Kumsta R, et al. Child-to-adult neurodevelopmental and mental health trajectories after early life deprivation: the young adult follow-up of the longitudinal English and Romanian Adoptees study. *Lancet (London, England)* 2017; **389**(10078): 1539-48.
104. McKinney B, Ding Y, Lewis DA, Sweet RA. DNA methylation as a putative mechanism for reduced dendritic spine density in the superior temporal gyrus of subjects with schizophrenia. *Translational psychiatry* 2017; **7**(2): e1032.
105. Slavich GM, Irwin MR. From stress to inflammation and major depressive disorder: a social signal transduction theory of depression. *Psychological bulletin* 2014; **140**(3): 774-815.
106. Felger JC, Miller AH. Neurotherapeutic implications of brain-immune interactions. *Neuropsychopharmacology* 2014; **39**(1): 242-3.
107. Buitenweg JI, Murre JM, Ridderinkhof KR. Brain training in progress: a review of trainability in healthy seniors. *Frontiers in human neuroscience* 2012; **6**: 183.
108. Hart H, Rubia K. Neuroimaging of child abuse: a critical review. *Front Hum Neurosci* 2012; **6**(52).
109. Moffitt TE. Genetic and environmental influences on antisocial behaviors: evidence from behavioral-genetic research. *Advances in genetics* 2005; **55**: 41-104.
110. Stein DJ, Lund C, Nesse RM. Classification systems in psychiatry: diagnosis and global mental health in the era of DSM-5 and ICD-11. *Current opinion in psychiatry* 2013; **26**(5): 493-7.
111. Jain S, Orr DM. Ethnographic perspectives on global mental health. *Transcultural psychiatry* 2016; **53**(6): 685-95.
112. Pūras D. Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. United Nations: Office of the High Commissioner of the United Nations. 2017 [cited 19 April 2017]. Available from: <http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=21480&LangID=E>
113. UNICEF. Children and Young People with Disabilities: Fact Sheet. New York: United Nations Children's Fund, May 2013.
114. United Nations. Women's Rights are Human Rights. Office of the High Commissioner, United Nations. New York and Geneva: United Nations Publication, 2014.

115. McDonald A, Buswell M, Khush S, Brophy M. Invisible Wounds: The impact of six years of war on the mental health of Syria's children. www.savethechildren.net: Save the Children; 2017.
116. United Nations. Convention of the Rights of Persons with Disabilities: United Nations Human Rights, Office of the High Commissioner for Human Rights, United Nations, 2006.
117. Drew N, Funk M, Tang S, al. e. Human rights violations of people with mental and psychosocial disabilities: an unresolved global crisis. *The Lancet* 2011; **378**(9803): 1664-75.
118. Batha E. Mentally ill tied to trees and left to die in Somalia. 2013 [cited 24 April, 2017]. Available from: <http://news.trust.org/item/20131007132825-oupwe/>.
119. Human Rights Watch. "Like a Death Sentence": Abuses against Persons with Mental Disabilities in Ghana. USA: Human Rights Watch, 2012.
120. World Health Organization and the Gulbenkian Global Mental Health Platform. Promoting rights and community living for children with psychosocial disabilities. Geneva: World Health Organization,; 2015.
121. Pan African Network of People with Psychosocial Disabilities (PANUSP). The Cape Town Declaration (16th October 2011). *Disability and the Global South* 2014; **1**(2): 385-6.
122. Biggeri M, Deepak S, Mauro V, al. e. Impact of CBR: Impact of Community-Based Rehabilitation programme in Mandya district (Karnataka, India). Bologna, Italy: Italian Association Amici di Raoul Follereau (AIFO), 2012.
123. Walker ER, McGee RE, Druss BG. Mortality in mental disorders and global disease burden implications: a systematic review and meta-analysis. *JAMA Psychiatry* 2015; **72**(4): 334-41.
124. Mental Disability Advocacy Centre. Legal Capacity in Europe. Budapest, Hungary, 2013.
125. Perlin ML. 'Striking for the Guardians and Protectors of the Mind': The Convention on the Rights of Persons with Mental Disabilities and the Future of Guardianship Law. New York: New York Law School 2013.
126. World Medical Association. Comments from the World Medical Association on Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health (A/HRC/35/21). Ferney-Voltaire, 2017.
127. Patel V, Chisholm D, Parikh R, et al. Addressing the burden of mental, neurological, and substance use disorders: key messages from Disease Control Priorities, 3rd edition. *The Lancet* 2016; **387**(10028): 1672-85.
128. World Health Organization. mhGAP Intervention Guide-for mental, neurological and substance use disorders in non-specialized health settings: WHO Press, World Health Organization; 2016.
129. van Ginneken N, Tharyan P, Lewin S, Rao GR, Romeo R, Patel V. Non-specialist health worker interventions for mental health care in low- and middle- income countries. Cochrane Collaboration. 2013. *Cochrane Review* 2013.
130. Cuijpers P, Sijbrandij M, Koole SL, Andersson G, Beekman AT, Reynolds CF, 3rd. The efficacy of psychotherapy and pharmacotherapy in treating depressive and anxiety disorders: a meta-analysis of direct comparisons. *World Psychiatry* 2013; **12**(2): 137-48.
131. Becker DR, Bond GR, Drake RE. Individual placement and support: the evidence-based practice of supported employment. In: Thornicroft G, Szumukler GI, Mueser KT, Drake RE, eds. Oxford Textbook of Community Mental Health. Oxford: Oxford University Press; 2011: 204-17.
132. Purgato M, Gross AL, Betancourt T, et al. Focused psychosocial interventions for children in low-resource humanitarian settings: a systematic review and individual participant data meta-analysis. *The Lancet Global Health* 2018; **6**(4): e390-e400.
133. Asher L, Patel V, De Silva MJ. Community-based psychosocial interventions for people with schizophrenia in low and middle-income countries: systematic review and meta-analysis. *BMC Psychiatry* 2017; **17**(1): 355.
134. Hoeft TJ, Fortney JC, Patel V, Unutzer J. Task-Sharing Approaches to Improve Mental Health Care in Rural and Other Low-Resource Settings: A Systematic Review. *J Rural Health* 2017.

135. Barry MM, Clarke AM, Jenkins R, Patel V. A systematic review of the effectiveness of mental health promotion interventions for young people in low and middle income countries. *BMC Public Health* 2013; **13**(1): 835.
136. Bernstein A, Chorpita BF, Daleiden EL, Ebesutani CK, Rosenblatt A. Building an evidence-informed service array: Considering evidence-based programs as well as their practice elements. *J Consult Clin Psychol* 2015; **83**(6): 1085-96.
137. Murray LK, Dorsey S, Haroz E, et al. A Common Elements Treatment Approach for Adult Mental Health Problems in Low- and Middle-Income Countries. *Cogn Behav Pract* 2014; **21**(2): 111-23.
138. Marchette LK, Weisz JR. Practitioner Review: Empirical evolution of youth psychotherapy toward transdiagnostic approaches. *Journal of child psychology and psychiatry, and allied disciplines* 2017; **58**(9): 970-84.
139. Naslund JA, Aschbrenner KA, Araya R, et al. Digital technology for treating and preventing mental disorders in low-income and middle-income countries: a narrative review of the literature. *The lancet Psychiatry* 2017.
140. Thornicroft G, Mehta N, Clement S, et al. Evidence for effective interventions to reduce mental-health-related stigma and discrimination. *The Lancet* 2016; **387**(10023): 1123-32.
141. Hamdani SU, Minhas FA, Iqbal Z, Rahman A. Model for Service Delivery for Developmental Disorders in Low-Income Countries. *Pediatrics* 2015; **136**(6): 1166-72.
142. Alvarez-Jimenez M, Gleeson J, Bendall S, et al. SU125. Momentum: A Novel Online Social Media, Mindfulness, and Strengths-Based Intervention to Promote Functional Recovery in Ultra High Risk (UHR) Patients. *Schizophrenia Bulletin* 2017; **43**(suppl_1): S206-S7.
143. Unutzer J, Choi Y, Cook IA, Oishi S. A web-based data management system to improve care for depression in a multicenter clinical trial. *Psychiatr Serv* 2002; **53**(6): 671-3, 8.
144. Thornicroft G, Tansella M. The balanced care model for global mental health. *Psychological Medicine* 2013; **43**(4): 849-63.
145. Nadkarni A, Hanlon C, Bhatia U, et al. The management of adult psychiatric emergencies in low-income and middle-income countries: a systematic review. *The lancet Psychiatry* 2015; **2**(6): 540-7.
146. Power P, McGorry P. Early interventions for people with psychotic disorders. In: Thornicroft G, Szmukler GI, Mueser KT, Drake RE (editors). *Oxford Textbook of Community Mental Health*. Oxford: Oxford University Press; 2011.
147. Clement S, Schauman O, Graham T, et al. What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological medicine* 2015; **45**(1): 11-27.
148. Alonso J, Liu Z, Evans-Lacko S, et al. Treatment gap for anxiety disorders is global: Results of the World Mental Health Surveys in 21 countries. *Depression and anxiety* 2018; **35**(3): 195-208.
149. Degenhardt L, Glantz M, Evans-Lacko S, et al. Estimating treatment coverage for people with substance use disorders: an analysis of data from the World Mental Health Surveys. *World Psychiatry* 2017; **16**(3): 299-307.
150. Henderson C, Robinson E, Evans-Lacko S, Thornicroft G. Relationships between anti-stigma programme awareness, disclosure comfort and intended help-seeking regarding a mental health problem. *Br J Psychiatry* 2017; **211**(5): 316-22.
151. Jordans MJ, Kohrt BA, Luitel NP, Lund C, Komproe IH. Proactive community case-finding to facilitate treatment seeking for mental disorders, Nepal. . *Bulletin of the World Health Organization* 2017; **95**(7): 531-6.
152. Shidhaye R, Lyngdoh T, Murhar V, Samudre S, Krafft T. Predictors, help-seeking behaviour and treatment coverage for depression in adults in Sehore district, India. *BJPsych Open* 2017; **3**(5): 212-22.

153. Maulik PK, Devarapalli S, Kallakuri S, et al. Evaluation of an anti-stigma campaign related to common mental disorders in rural India: a mixed methods approach. *Psychological Medicine* 2017; **47**(3): 565-75.
154. Thornicroft G, Henderson C. Joint Decision Making and Reduced Need for Compulsory Psychiatric Admission. *JAMA Psychiatry* 2016; **73**(7): 647-8.
155. Henderson C, Brohan E, Clement S, et al. A decision aid to assist decisions on disclosure of mental health status to an employer: protocol for the CORAL exploratory randomised controlled trial. *BMC Psychiatry* 2012; **12**: 133.
156. Erskine HE, Moffitt TE, Copeland WE, et al. A heavy burden on young minds: the global burden of mental and substance use disorders in children and youth. *Psychol Med* 2015; **45**(7): 1551-63.
157. Patel V. Acting early: the key to preventing mental health problems. *Journal of the Royal Society of Medicine* 2018; DOI: **10.1177/0141076818764995**.
158. McGorry PD, Goldstone SD, Parker AG, Rickwood DJ, Hickie IB. Cultures for mental health care of young people: an Australian blueprint for reform. *The Lancet Psychiatry* 2014; **1**(7): 559-68.
159. Richter LM, Daelmans B, Lombardi J, et al. Investing in the foundation of sustainable development: pathways to scale up for early childhood development. *The Lancet* 2017; **389**(10064): 103-18.
160. Britto PR, Lye SJ, Proulx K, et al. Nurturing care: promoting early childhood development. *The Lancet* 2017; **389**(10064): 91-102.
161. Thomas R, Zimmer-Gembeck MJ. Accumulating evidence for parent-child interaction therapy in the prevention of child maltreatment. *Child development* 2011; **82**(1): 177-92.
162. Jordans MJD, Pigott H, Tol WA. Interventions for Children Affected by Armed Conflict: a Systematic Review of Mental Health and Psychosocial Support in Low- and Middle-Income Countries. *Current psychiatry reports* 2016; **18**(1): 9.
163. Goodman SH, Rouse MH, Connell AM, Broth MR, Hall CM, Heyward D. Maternal depression and child psychopathology: a meta-analytic review. *Clinical child and family psychology review* 2011; **14**(1): 1-27.
164. Kieling C, Baker-Henningham H, Belfer M, et al. Child and adolescent mental health worldwide: evidence for action. *The Lancet* 2011; **378**(9801): 1515-25.
165. Gertler P, Heckman J, Pinto R, et al. Labor market returns to an early childhood stimulation intervention in Jamaica. *Science* 2014; **344**(6187): 998-1001.
166. Patel V, Chisholm D, Parikh R, et al. Global Priorities for Addressing the Burden of Mental, Neurological, and Substance Use Disorders. In: Patel V, Chisholm D, Dua T, Laxminarayan R, Medina-Mora ME, eds. *Mental, Neurological, and Substance Use Disorders: Disease Control Priorities, Third Edition (Volume 4)*. Washington (DC); 2016.
167. Scott J, Mihalapoulos C, Erskine H, Roberts J, Rahman A. Childhood mental and development disorders. *Mental, Neurological and Substance Use Disorders: Disease Control Priorities (DCP3)*. Seattle: Disease Control Priorities (DCP3); 2015.
168. Bowers B, Kuipers P, Dorsett P. Disability, CBR and Inclusive Development. 2015; **26**(No.2): doi 10.5463/DCID.v26i2.425.
169. Rahman A, Divan G, Hamdani SU, et al. Effectiveness of the parent-mediated intervention for children with autism spectrum disorder in south Asia in India and Pakistan (PASS): a randomised controlled trial. *The Lancet Psychiatry* 2016; **3**(2): 128-36.
170. Patton GC, Sawyer SM, Santelli JS, et al. Our future: a Lancet commission on adolescent health and wellbeing. *The Lancet* 2016; **387**(10036): 2423-78.
171. Shackleton N, Jamal F, Viner RM, Dickson K, Patton G, Bonell C. School-Based Interventions Going Beyond Health Education to Promote Adolescent Health: Systematic Review of Reviews. *J Adolesc Health* 2016; **58**(4): 382-96.
172. Wells J, Barlow J, Stewart-Brown S. A systematic review of universal approaches to mental health promotion in schools. *Health Education* 2003; **103**(4): 197-220.

173. Knapp M, McDaid D, Parsonage M. Mental Health Promotion and Prevention: The economic case. London: Personal Social Services Research Unit, London School of Economics and Political Science, 2011.
174. World Health Organization. Preventing suicide: A global imperative. Geneva: WHO, 2014.
175. Patel V, Flisher AJ, Hetrick S, McGorry P. Mental health of young people: a global public-health challenge. *The Lancet* 2007; **369**(9569): 1302-13.
176. Valero de Vicente M, Ballester Brage L, Orte Socias MC, Amer Fernandez JA. Meta-analysis of family-based selective prevention programs for drug consumption in adolescence. *Psicothema* 2017; **29**(3): 299-305.
177. Mendelson T, Eaton WW. Recent advances in the prevention of mental disorders. *Social psychiatry and psychiatric epidemiology* 2018; **53**(4): 325-39.
178. Milligan-Saville JS, Tan L, Gayed A, et al. Workplace mental health training for managers and its effect on sick leave in employees: a cluster randomised controlled trial. *The Lancet Psychiatry* 2017; **4**(11): 850-8.
179. Probst TM, Gold D, Caborn J. A preliminary evaluation of SOLVE: addressing psychosocial problems at work. *Journal of occupational health psychology* 2008; **13**(1): 32-42.
180. World Health Organization. Global Strategy to reduce the harmful use of alcohol. Geneva: WHO; 2010.
181. Haushofer J, Shapiro J. The short-term impact of unconditional cash transfers to the poor: Experimental evidence from Kenya. *The Quarterly Journal of Economics* 2016; **131**(4): 1973-2042.
182. Ssewamala F, Han CK, Neilands TB. Asset ownership and health and mental health functioning among AIDS-orphaned adolescents: findings from a randomised clinical trial in rural Uganda. *Social Science & Medicine* 2009; **69**: 191-8.
183. Lund C, De Silva M, Plagerson S, et al. Poverty and mental disorders: breaking the cycle in low-income and middle-income countries. *The Lancet* 2011; **378**(9801): 1502-14.
184. Fernald L, Hamad R, Karlan D, Ozer E, Zinman J. Small individual loans and mental health: a randomized controlled trial among South African adults. *BMC Public Health* 2008; **8**: 409-23.
185. Lund C. Poverty and mental health: Towards a research agenda for low and middle-income countries. Commentary on Tampubolon and Hanandita (2014). *Soc Sci Med* 2014.
186. Medina-Mora ME., Montiero M., Room R., et al. Alcohol Use and Alcohol Use Disorders. In: , editors. 2015. Mental, Neurological, and Substance Use Disorders. In: Patel V, Chisholm D., Dua T., Laxminarayan R., Medina-Mora M.E., eds. Disease Control Priorities, Third Edition, Volume 4. Washington DC: World Bank; 2015: 127-43.
187. Patel V, Chatterji S. Integrating Mental Health In Care For Noncommunicable Diseases: An Imperative For Person-Centered Care. *Health Affairs* 2015; **34**(9): 1498-505.
188. GBD 2015 Mortality and Causes of Death Collaborators. Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet* 2016; **388**(10053): 1459-544.
189. Liu NH, Daumit GL, Dua T, et al. Excess mortality in persons with severe mental disorders: a multilevel intervention framework and priorities for clinical practice, policy and research agendas. *World Psychiatry* 2017; **16**(1): 30-40.
190. Archer J, Bower P, Gilbody S, et al. Collaborative care for depression and anxiety problems. *Cochrane Database Syst Rev* 2012; **10**: CD006525.
191. Patel V, Belkin G, Chockalingam A, Cooper J, Shekhar S, Unutzer J. Grand challenges: integrating mental health services into priority health care platforms. *PLoS medicine* 2013; **10**(5): e1001448.
192. Fairall L, Bateman E, Cornick R, et al. Innovating to improve primary care in less developed countries: towards a global model. *BMJ Innov* 2015; **1**(4): 196-203.
193. Semrau M, Evans-Lacko S, Alem A, et al. Strengthening mental health systems in low- and middle-income countries: the Emerald programme. *BMC Med* 2015; **13**: 79.

194. Lund C, Tomlinson M, De Silva M, et al. PRIME: a programme to reduce the treatment gap for mental disorders in five low- and middle-income countries. *PLoS medicine* 2012; **9**(12): e1001359.
195. World Health Organization. Global Strategy and Action Plan on Ageing and Health (2016-2020): WHO; 2016.
196. Prince MJ, Wu F, Guo Y, et al. The burden of disease in older people and implications for health policy and practice. *The Lancet* 2015; **385**(9967): 549-62.
197. Lapierre S, Erlangsen A, Waern M, et al. A systematic review of elderly suicide prevention programs. *Crisis* 2011; **32**(2): 88-98.
198. Prince M, Albanese E, Guerchet M, Prina M. World Alzheimer Report 2014. Dementia and Risk Reduction. An analysis of Protective and Modifiable Risk Factors. London: Alzheimer's Disease International; 2014.
199. Livingston G, Sommerlad A, Orgeta V, et al. Dementia prevention, intervention, and care. *The Lancet* 2017; **390**(10113): 2673-734.
200. Prince M, Ali GC, Guerchet M, Prina AM, Albanese E, Wu YT. Recent global trends in the prevalence and incidence of dementia, and survival with dementia. *Alzheimers Res Ther* 2016; **8**(1): 23.
201. World Health Organization. Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity. Geneva: World Health Organization, 2017.
202. Orgeta V, Brede J, Livingston G. Behavioural activation for depression in older people: systematic review and meta-analysis. *Br J Psychiatry* 2017: bjp.bp.117.205021.
203. Prince M, Comas-Herrera A, Knapp M, Guerchet M, Karagiannidou M. World Alzheimer Report 2016. Improving healthcare for people with dementia - Coverage, Quality and Costs, Now and in the Future. London: Alzheimer's Disease International, 2016.
204. World Health Organisation. iSupport For Dementia. 2018: [Cited 22 Apr 2018]. Available from: <https://www.isupportfordementia.org/en>.
205. Inter-Agency Standing Committee (IASC). IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings. Geneva: IASC; 2007.
206. The Sphere Project. Humanitarian Charter and Minimum Standards in Humanitarian Response. 2018. <http://www.sphereproject.org/> (accessed 04 Apr 2018).
207. Derr AS. Mental Health Service Use Among Immigrants in the United States: A Systematic Review. *Psychiatric services (Washington, DC)* 2016; **67**(3): 265-74.
208. Lopes AP, Macedo TF, Coutinho ESF, Figueira I, Ventura PR. Systematic Review of the Efficacy of Cognitive-Behavior Therapy Related Treatments for Victims of Natural Disasters: A Worldwide Problem. *PLOS ONE* 2014; **9**(10): e109013.
209. Rahman A, Hamdani SU, Awan NA, et al. Effect of a Multicomponent Behavioral Intervention in Adults Impaired by Psychological Distress in a Conflict-Affected Area of Pakistan: A Randomized Clinical Trial. *Jama* 2016; **316**(24): 2609-17.
210. Thornicroft G, Deb T, Henderson C. Community mental health care worldwide: current status and further developments. *World Psychiatry* 2016; **15**(3): 276-86.
211. Knapp M, Beecham J, McDaid D, Matosevic T, Smith M. The economic consequences of deinstitutionalisation of mental health services: lessons from a systematic review of European experience. *Health Soc Care Community* 2011; **19**(2): 113-25.
212. Krupchanka D, Winkler P. State of mental healthcare systems in Eastern Europe: do we really understand what is going on? *BJPsych international* 2016; **13**(4): 96-9.
213. Treatment Advocacy Center. Serious Mental Illness Prevalence in Jails and Prisons. 2018: [Cited 20 Apr 2018]. Available from: <http://www.treatmentadvocacycenter.org/evidence-and-research/learn-more-about/3695>.
214. Walker J, Illingworth C, Canning A, et al. Changes in mental state associated with prison environments: a systematic review. *Acta Psychiatr Scand* 2014; **129**(6): 427-36.
215. Shaw J, Conover S, Herman D, et al. Critical time Intervention for Severely mentally ill Prisoners (CrISP): a randomised controlled trial. Southampton (UK): NIHR Monograph; 2017.

216. Ibrahim A, Esena RK, Aikins M, O'Keefe AM, McKay MM. Assessment of mental distress among prison inmates in Ghana's correctional system: a cross-sectional study using the Kessler Psychological Distress Scale. *Int J Ment Health Syst* 2015; **9**: 17.
217. Winkler P, Barrett B, McCrone P, Csemy L, Janouskova M, Hoschl C. Deinstitutionalised patients, homelessness and imprisonment: systematic review. *Br J Psychiatry* 2016; **208**(5): 421-8.
218. World Health Organisation. WHO Quality Rights Tool Kit. Geneva: World Health Organization; 2012.
219. Tiihonen J, Mittendorfer-Rutz E, Majak M, et al. Real-World Effectiveness of Antipsychotic Treatments in a Nationwide Cohort of 29823 Patients With Schizophrenia. *JAMA Psychiatry* 2017; **74**(7): 686-93.
220. Thornicroft G, Alem A, Antunes Dos Santos R, et al. WPA guidance on steps, obstacles and mistakes to avoid in the implementation of community mental health care. *World Psychiatry* 2010; **9**(2): 67-77.
221. Fazel S, Khosla V, Doll H, Geddes J. The prevalence of mental disorders among the homeless in western countries: systematic review and meta-regression analysis. *PLoS medicine* 2008; **5**(12): e225.
222. Bassuk EL, Richard MK, Tsertsvadze A. The prevalence of mental illness in homeless children: a systematic review and meta-analysis. *J Am Acad Child Adolesc Psychiatry* 2015; **54**(2): 86-96 e2.
223. Aubry T, Nelson G, Tsemberis S. Housing First for People With Severe Mental Illness Who Are Homeless: A Review of the Research and Findings From the At Home-Chez soi Demonstration Project. *Can J Psychiatry* 2015; **60**(11): 467-74.
224. Benston EA. Housing Programs for Homeless Individuals With Mental Illness: Effects on Housing and Mental Health Outcomes. *Psychiatr Serv* 2015; **66**(8): 806-16.
225. Eaton J, Des Roches B, Nwaubani K, Winters L. Mental Health Care for Vulnerable People With Complex Needs in Low-Income Countries: Two Services in West Africa. *Psychiatr Serv* 2015; **66**(10): 1015-7.
226. United Nations. Right of everyone to the enjoyment of the highest attainable standard of physical and mental health - Resolution 6/29. Human Right Council, United Nations, 2007.
227. United Nations. United Nations Convention on the Rights of Persons with Disabilities (UNCRPD). New York: United Nations, 2006.
228. Lancet Global Mental Health Group. Scale up services for mental disorders: a call for action. *The Lancet* 2007; **370**(9594): 1241-52.
229. Mental Health Innovation Network. Chain-Free Pasung Program. 2017: [Cited 07 Oct 2017]. Available from: <http://www.mhinnovation.net/innovations/chain-free-pasung-program>.
230. International Alliance of Mental Health Research Funders. Fostering Collaboration in Mental Health Research Funding. 2018: [Accessed 31 Mar 2018]. Available from <http://iamhrf.org/>.
231. Porter M, Stern S, Green M. Social progress Index 2017. Social Progress Imperative. 2017. Available from: <http://www.socialprogressimperative.org/>
232. Sustainable Development Solutions Network. SDG Index and Dashboards Report 2017; 2017. Available from: <http://www.sdgindex.org/assets/files/2017/2017-SDG-Index-and-Dashboards-Report--full.pdf>.
233. United Nations Development Programme. Human Development Report 2016: Human Development for Everyone. 2016.
234. World Health Organisation. 2017 Mental Health Atlas. Geneva: World Health Organization, (forthcoming 2018).
235. Prince M, Patel V, Saxena S, et al. No health without mental health. *The Lancet* 2007; **370**: 859-77.
236. Helliwell J, Layard R, Sachs J. World Happiness Report 2016. New York: Sustainable Development Solutions Network, 2016.
237. Diener E, Oishi S, Lucas RE. Personality, culture, and subjective well-being: emotional and cognitive evaluations of life. *Annual review of psychology* 2003; **54**: 403-25.

238. Saxena S, Carlson D, Billington R. The WHO quality of life assessment instrument (WHOQOL-Bref): the importance of its items for cross-cultural research. *Qual Life Res* 2001; **10**(8): 711-21.
239. WHO. Strengthening Mental Health Promotion. Geneva: World Health Organization, 2001.
240. Wilkinson I. Suffering: A sociological introduction. Indianapolis, Indiana: Polity; 2005.
241. Cape Town Declaration: Pan African Network of People with Psychosocial Disabilities, 2011.
242. WHO. WHO QualityRights tool kit: Assessing and improving quality and human rights in mental health and social care facilities. Geneva: WHO; 2012.
243. American Psychological Association. The road to resilience. Washington, DC: American Psychological Association; 2014. Available from: <http://www.apa.org/helpcenter/road-resilience.aspx>.
244. Ahmad FB, Rossen LM, Spencer MR, Warner M, Sutton P. Provisional drug overdose death counts. *National Center for Health Statistics* 2017: Available from: <https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>.
245. McCarthy M. How inappropriate prescribing prompted the opioid addiction ravaging small town America. *BMJ (Clinical research ed)* 2017; **359**: j4730.
246. Walters J. America's opioid crisis: how prescription drugs sparked a national trauma. *The Guardian* 2017: [Cited 12 Dec 2018]. Available from: <https://www.theguardian.com/us-news/7/oct/25/americas-opioid-crisis-how-prescription-drugs-sparked-a-national-trauma>.
247. National Institute on Drug Abuse (NIDA). Opioid Crisis. 2017. [Cited 07 Oct 2017]. Available from: <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-crisis>.
248. Ryan H, Girion L, Glover S. OxyContin goes global — “We’re only just getting started”. *Los Angeles Times*; 2016. Available from: <http://www.latimes.com/projects/la-me-oxycontin-part3/>
249. Bick J, Nelson CA. Early Adverse Experiences and the Developing Brain. *Neuropsychopharmacology* 2016; **41**(1): 177-96.
250. Hair NL, Hanson JL, Wolfe BL, Pollak SD. Association of Child Poverty, Brain Development, and Academic Achievement. *JAMA pediatrics* 2015; **169**(9): 822-9.
251. Hackman DA, Farah MJ, Meaney MJ. Socioeconomic status and the brain: mechanistic insights from human and animal research. *Nature reviews Neuroscience* 2010; **11**(9): 651-9.
252. Foulkes L, Blakemore S-J. Is there heightened sensitivity to social reward in adolescence? *Current Opinion in Neurobiology* 2016; **40**: 81-5.
253. Blakemore S-J, Robbins TW. Decision-making in the adolescent brain. *Nature neuroscience* 2012; **15**(9): 1184-91.
254. Apicella CL, Carré JM, Dreber A. Testosterone and Economic Risk Taking: A Review. *Adaptive Human Behavior and Physiology* 2015; **1**(3): 358-85.
255. Tang Y-Y, Holzel BK, Posner MI. The neuroscience of mindfulness meditation. *Nat Rev Neurosci* 2015; **16**(4): 213-25.
256. da SJ, Goncalves-Pereira M, Xavier M, Mukaetova-Ladinska EB. Affective disorders and risk of developing dementia: systematic review. *Br J Psychiatry* 2013; **202**(3): 177-86.
257. Butters MA, Young JB, Lopez O, et al. Pathways linking late-life depression to persistent cognitive impairment and dementia. *Dialogues Clin Neurosci* 2008; **10**(3): 345-57.
258. Soysal P, Veronese N, Thompson T, et al. Relationship between depression and frailty in older adults: A systematic review and meta-analysis. *Ageing Res Rev* 2017; **36**: 78-87.
259. Boccardi V, Pelini L, Ercolani S, Ruggiero C, Mecocci P. From cellular senescence to Alzheimer's disease: The role of telomere shortening. *Ageing Res Rev* 2015; **22**: 1-8.
260. Bagyinszky E, Giau VV, Shim K, Suk K, An SSA, Kim S. Role of inflammatory molecules in the Alzheimer's disease progression and diagnosis. *J Neurol Sci* 2017; **376**: 242-54.
261. Gurung D, Upadhyaya N, Magar J, Giri NP, Hanlon C, Jordans MJD. Service user and care giver involvement in mental health system strengthening in Nepal: a qualitative study on barriers and facilitating factors. *Int J Ment Health Syst* 2017; **11**: 30.
262. Mendenhall E. Syndemics: a new path for global health research. *Lancet (London, England)* 2017; **389**(10072): 889-91.

263. Levin C, Chisholm D. Cost-Effectiveness and Affordability of Interventions, Policies, and Platforms for the Prevention and Treatment of Mental, Neurological, and Substance Use Disorders. In: Patel V, Chisholm C, Dua T, Laxminarayan R, Medina-Mora ME, eds. Mental, Neurological, and Substance Use Disorders Disease Control Priorities, third edition, volume 4. Washington, DC; 2015.
264. Maggin D, Servili C. Psychosocial interventions, treatment of emotional disorders. Geneva: mhGAP Resource Centre, World Health Organization; 2015.
265. Stockings EA, Degenhardt L, Dobbins T, et al. Preventing depression and anxiety in young people: a review of the joint efficacy of universal, selective and indicated prevention. *Psychol Med* 2016; **46**(1): 11-26.
266. Tan L, Wang MJ, Modini M, et al. Preventing the development of depression at work: a systematic review and meta-analysis of universal interventions in the workplace. *BMC Med* 2014; **12**: 74.
267. Forsman AK, Nordmyr J, Wahlbeck K. Psychosocial interventions for the promotion of mental health and the prevention of depression among older adults. *Health Promot Int* 2011; **26 Suppl 1**: i85-107.
268. Rahman A, Fisher J, Bower P, et al. Interventions for common perinatal mental disorders in women in low- and middle-income countries: a systematic review and meta-analysis. *Bull World Health Organ* 2013; **91**(8): 593-601.
269. Cuijpers P, Karyotaki E, Weitz E, Andersson G, Hollon SD, van Straten A. The effects of psychotherapies for major depression in adults on remission, recovery and improvement: a meta-analysis. *Journal of affective disorders* 2014; **159**: 118-26.
270. Sockol LE, Epperson CN, Barber JP. Preventing postpartum depression: a meta-analytic review. *Clin Psychol Rev* 2013; **33**(8): 1205-17.
271. Linde K, Rucker G, Sigterman K, et al. Comparative effectiveness of psychological treatments for depressive disorders in primary care: network meta-analysis. *BMC Fam Pract* 2015; **16**: 103.
272. Sim K, Lau WK, Sim J, Sum MY, Baldessarini RJ. Prevention of Relapse and Recurrence in Adults with Major Depressive Disorder: Systematic Review and Meta-Analyses of Controlled Trials. *Int J Neuropsychopharmacol* 2015; **19**(2).
273. National Institute for Health and Clinical Excellence. Depression: NICE Clinical Guideline 90. London: National Institute for Health and Clinical Excellence 2009.
274. Chisholm D, Burman-Roy S, Fekadu A, et al. Estimating the cost of implementing district mental healthcare plans in five low- and middle-income countries: the PRIME study. *Br J Psychiatry* 2016; **208 Suppl 56**: s71-8.
275. McGorry P, Keshavan M, Goldstone S, et al. Biomarkers and clinical staging in psychiatry. *World Psychiatry* 2014; **13**(3): 211-23.
276. McGorry P, van Os J. Redeeming diagnosis in psychiatry: timing versus specificity. *The Lancet* 2013; **381**(9863): 343-5.
277. Thornicroft G, Tansella M. The balanced care model: the case for both hospital and community-based mental healthcare (editorial). *The British Journal of Psychiatry* 2012; **201**: 1-3.

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The Lancet Commission on Global Mental Health and Sustainable Development

**THE LANCET COMMISSION ON GLOBAL MENTAL HEALTH &
SUSTAINABLE DEVELOPMENT**

Vikram Patel^{*}, Shekhar Saxena^{*}, Crick Lund^{**}, Graham Thornicroft^{**}, Florence Baingana[§],
Paul Bolton[§], Dan Chisholm[§], Pamela Y. Collins[§], Janice Cooper[§], Julian Eaton[§], Helen Herrman[§],
Mohammad M. Herzallah[§], Yueqin Huang[§], Mark Jordans[§], Arthur Kleinman[§],
Maria Elena Medina Mora[§], Ellen Morgan[§], Unaiza Niaz[§], Olayinka Omigbodun[§], Martin Prince[§],
Atif Rahman[§], Benedetto Saraceno[§], Bidyut K. Sarkar[§], Mary De Silva[§], Ilina Singh[§], Dan J. Stein[§],
Charlene Sunkel[§], Jorgen Unutzer[§].

^{*}Joint Editors

^{**}Co-Editors

[§]In alphabetical order

AUTHOR AFFILIATION

Vikram Patel, PhD; Pershing Square Professor of Global Health and Wellcome Trust Principal Research Fellow, Harvard Medical School, USA; Harvard TH Chan School of Public Health, USA; Sangath, India; and the Public Health Foundation of India (vikram_patel@hms.harvard.edu)

Shekhar Saxena, MD, Director, Department of Mental Health and Substance Abuse, World Health Organization, Geneva (saxenas@who.int)

Crick Lund, PhD; Professor of Global Mental Health and Development, Centre for Global Mental Health, Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King's College London; and Alan J Flisher Centre for Public Mental Health, Department of Psychiatry and Mental Health, University of Cape Town. (crick.lund@uct.ac.za)

Sir Graham Thornicroft, PhD; Professor of Community Psychiatry, Institute of Psychiatry, Psychology and Neuroscience, King's College London, UK (graham.thornicroft@kcl.ac.uk)

Florence Baingana, MSc; Mental Health Specialist, WHO Sierra Leone; Makerere University School of Public Health, Kampala (Kamayonza@gmail.com)

Paul Bolton, MB BS; Senior Scientist, Department of International Health and Department of Mental Health, Center for Humanitarian Health, Johns Hopkins University Bloomberg School of Public Health, Baltimore MD USA (pbolton1@jhu.edu)

Dan Chisholm, PhD; Programme Manager for Mental Health; WHO Regional Office for Europe, Copenhagen, Denmark (chisholmd@who.int)

Pamela Y. Collins, MD, MPH; Professor of Psychiatry & Behavioral Sciences and Professor of Global Health, University of Washington School of Medicine and School of Public Health, USA (pyc1@uw.edu)

Janice L. Cooper, PhD; Country Representative for Health, Liberia Mental Health Program, The Carter Center and Instructor, Emory University, USA, Monrovia, Liberia (janice.cooper@cartercenter.org)

Julian Eaton, MRCPsych; Senior Mental Health Advisor, CBM International; and Assistant Professor, Centre for Global Mental Health, London School of Hygiene and Tropical Medicine (julian.eaton@cbm.org)

Helen Herrman, Hon DMedSc, MD; Professor of Psychiatry, Orygen, The National Centre of Excellence in Youth Mental Health, and Centre for Youth Mental Health, The University of Melbourne, Australia; Director, World Health Organization Collaborating Centre in Mental Health, Melbourne, Australia; President, World Psychiatric Association (h.herrman@unimelb.edu.au)

Mohammad M. Herzallah, M.D., Ph.D.; Palestinian Neuroscience Initiative, Al-Quds University, Jerusalem, Palestine; Center for Molecular and Behavioral Neuroscience, Rutgers University, Newark, NJ, USA (mohammad.m.herzallah@gmail.com).

Yueqin Huang, PhD; Professor of Social Psychiatry, Peking University Sixth Hospital (Institute of Mental Health), Key Laboratory of Mental Health, Ministry of Health (Peking University), National Clinical Research Centre for Mental Disorders (Peking University Sixth Hospital). Vice-president, China Disabled Persons' Federation. President, Chinese Mental Health Journal, Beijing, China (huangyq@bjmu.edu.cn)

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The Lancet Commission on Global Mental Health and Sustainable Development

Mark Jordans, PhD; Reader Child and Adolescent Mental Health in Humanitarian Settings, Center for Global Mental Health, King's College London, UK; and Director, Research and Development, War Child, the Netherlands (mark.jordans@kcl.ac.uk)

Arthur Kleinman, PhD; Esther and Sidney Rabb Professor, Department of Anthropology, Harvard University; Professor of Medical Anthropology and Psychiatry, Department of Global Health and Social Medicine, Harvard Medical School, USA. (kleinman@fas.harvard.edu)

Maria Elena Medina-Mora, PhD; General Director, National Institute on Psychiatry Ramon de la Fuente Muñiz (Mexico) (metmmora@gmail.com)

Ellen Morgan, MPhil: Program Officer, Templeton World Charity Foundation
(ellenmerymorgan@gmail.com)

Unaiza Niaz, MD, DPM, FRCPsych; Director, The Psychiatric Clinic & Stress Research Center, Pakistan; Adjunct Professor, University of Health Sciences, Pakistan; Faculty, Dow University of Health Sciences, Pakistan (drunaiza@gmail.com)

Olayinka Omigbodun, FMCPsych; Professor of Psychiatry, College of Medicine and Director, Centre for Child and Adolescent Mental Health, University of Ibadan, Nigeria(yomigbodun@comui.edu.ng)

Martin Prince, MD; Professor of Epidemiological Psychiatry, King's College London
(martin.prince@kcl.ac.uk)

Atif Rahman, PhD; Professor of Child Psychiatry, University of Liverpool, UK; Human Development Research Foundation, Pakistan (atif.rahman@liverpool.ac.uk)

Benedetto Saraceno, MD; Professor of Global Health, School of Medical Sciences, University Nova of Lisbon, Portugal; and the Lisbon Institute of Global Mental Health
(benedetto.saraceno@gmail.com)

Bidyut K Sarkar, PhD, MD; Project Director, PRIDE Project, Sangath, India; and the Public Health Foundation of India (bidyutk.sarkar@gmail.com)

Mary De Silva, PhD; Head of Population Health, The Wellcome Trust, UK
(m.desilva@wellcome.ac.uk)

Ilina Singh, PhD; Professor of Neuroscience & Society, University of Oxford, Department of Psychiatry and Wellcome Centre for Ethics and Humanities (ilina.singh@psych.ox.ac.uk)

Dan J. Stein, FRCPC, PhD; Professor and Chair, Department of Psychiatry & Mental Health, University of Cape Town, Groote Schuur Hospital and South African Medical Research Council Unit on Risk & Resilience in Mental Disorders (dan.stein@uct.ac.za)

Charlene Sunkel: Program Manager for Advocacy and Development, SA Federation for Mental Health; Principal Coordinator, Movement for Global Mental Health (charlene@safmh.org)

Jürgen Unützer, MD, MPH, MA; Professor and Chair, Department of Psychiatry and Behavioral Sciences, University of Washington; Founder, AIMS Center, USA (unutzer@uw.edu)

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EXECUTIVE SUMMARY

The Sustainable Development Goals (SDGs) represent an exponential advance from the Millennium Development Goals, with a substantially broader agenda affecting all nations and requiring co-ordinated global actions. The specific references to mental health and substance use as targets within the health Goal reflects this transformative vision. In 2007, a series of papers in the *Lancet* synthesised decades of inter-disciplinary research and practice in diverse contexts and called the global community to action to 'scale up services for people affected by mental disorders (including substance use disorders, self-harm and dementia), in particular in low and middle-income countries where the attainment of human rights to care and dignity were most seriously compromised. Ten years on, this Commission reassesses the global mental health agenda in the context of the SDGs.

Despite significant research advances showing what can be done to prevent and treat mental disorders and to promote mental health, translation into real-world impact has been painfully slow. The Global Burden of Disease attributable to mental disorders has risen inexorably in all countries in the context of major demographic, environmental and socio-political transitions. Human rights violations and abuses persist in many countries, with large numbers of people locked away in mental institutions or prisons or living on the streets, often without legal protection. The quality of mental health services are routinely worse than those for physical health. Government investment and development assistance for mental health remain pitifully small. Our collective failure to respond to this global health crisis results in monumental levels of lost human capabilities and avoidable suffering.

We have a historic opportunity to reframe the Global Mental Health agenda in light of the broader conceptualization of mental health and disorder envisioned in the SDGs. This opportunity is exemplified by the passage of the WHO's Comprehensive Mental Health Action Plan, the ratification of international Conventions protecting the rights of persons with psychosocial disabilities, the convergence of new evidence from diverse scientific disciplines on the nature and causes of mental health problems, the ubiquitous availability of digital technology, and the growing consensus amongst diverse stakeholders about the need for action and what this action should look like. This Commission grasps the opportunity presented by the SDGs to broaden the Global Mental Health agenda from a focus on reducing the treatment gap for people affected by mental disorders to the improvement of mental health for whole populations and reducing the contribution of mental disorders to the Global Burden of Disease. The Commission grounds this re-framed agenda on four foundational pillars.

First, mental health is a global public good, relevant to sustainable development in all countries, regardless of their socio-economic status, as all countries are 'developing' in the context of mental health. Second, mental health problems exist along a continuum from mild, time-limited distress to chronic, progressive and severely disabling conditions. The binary approach to diagnosing mental disorders, while continuing to have utility for clinical practice, fails to accurately reflect the diversity and complexity of mental health needs of individuals or populations. Third, the mental health of each individual is the unique product of social and environmental influences, in particular during the early life course, interacting with genetic, neuro-developmental and psychological processes, affecting biological pathways in the brain. Fourth, mental health is a fundamental human right for all people, necessitating a rights-based approach to the welfare of people with mental disorders, to those who face vulnerabilities or risk factors associated with poor mental health, and to enable an environment which promotes mental health for all.

Realising this reframed agenda will require *six* key actions. The Commission fully recognises the diversity of settings *across* countries as well as *within* countries and suggests that the starting point for staged implementation of its recommendations will differ according to particular settings and the likely availability of human and financial resources. First, mental health services must be scaled up as an essential component of universal health coverage and should be fully integrated in the global response to other health priorities, including non-communicable diseases, maternal and child

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health, and HIV/AIDS. Equally, the physical health of people with severe mental disorders must be emphasized in such integrated care. Second, barriers and threats to mental health must be assertively addressed. These include the lack of awareness of the value of mental health in social and economic development, the lack of attention to its promotion and protection across sectors, the severe demand side constraints for mental health care posed by stigma and discrimination, and the increasing risks and threats to mental health posed by global challenges such as climate change and growing inequality. Third, mental health must be protected by public policies and developmental efforts and these inter-sectoral actions must be led by each country's top leadership to engage a wide range of stakeholders within and beyond health, notably through the sectors of education, workplace, social welfare, gender empowerment, child and youth services, criminal justice and development and humanitarian assistance. These interventions must target social and environmental determinants that have a critical influence, positive or negative, on mental health at developmentally sensitive periods, particularly in childhood and adolescence, for the promotion of mental health and the prevention of mental disorders. Fourth, new opportunities must be enthusiastically embraced, in particular those offered by the innovative use of trained non-specialist human resources and digital technologies to deliver a range of mental health interventions, and the mobilization of the voices of people with the lived experience of mental disorders. Fifth, substantial additional investments must be urgently made as the economic and health case for increased investments in mental health is strong. While additional resources are essential, there is also an immediate opportunity for more efficient and effective use of existing resources, for example through the redistribution of mental health budgets from large hospitals to district hospital and community-based local services, the introduction of early interventions for emerging mental disorders, and re-allocating budgets for other health priorities to promote integration of mental health care in established platforms of delivery. Finally, investments in research and innovation must grow and harness novel understandings and approaches from diverse disciplines such as genomics, neuroscience, health services research, clinical sciences and social sciences, both for implementation research on scaling up mental health interventions, and for discovery research to advance understanding of causes and mechanisms of mental disorders and develop more effective interventions to prevent and treat them.

This Commission proposes a broad and integrated set of indicators to monitor progress for mental health in the SDG era, spanning the social determinants of mental health, the mental health status of populations, and the inputs into and outcomes of mental health services and systems. We call for the establishment of a Partnership to realize the opportunity to transform mental health globally, with the goals of the mobilization, disbursement, enabling the utilization and monitoring of funds, and evaluating the impact of the actions proposed by the Commission. Such a Partnership must include engagement of UN and development agencies, academic institutions and NGOs with appropriate expertise, the private sector, civil society organizations representing the voices of persons with a lived experience and their family members, and policy makers from national and international agencies.

This Commission reframes mental health by bringing together knowledge drawn from diverse scientific perspectives and real-world experiences to offer a fresh, ambitious and unified vision for action. Our conceptualization is aligned with, and will give further impetus to the central SDG principle to "leave no one behind" and to the notions of human capabilities and capital. We believe both in the inherent right of every person to mental health, and that mental health is a means of facilitating sustainable socio-economic development, more complete health, and a more equitable world. Urgent action to fully implement our recommendations will not only hasten the attainment of the mental health targets of the SDGs, but indeed many of the other SDGs as well.

SECTION 1: THE JOURNEY SO FAR

In 2015, all nations united around a shared mission of achieving the Sustainable Development Goals (SDGs) (<http://www.un.org/sustainabledevelopment/sustainable-development-goals/>). This was an exponential advance from the Millennium Development Goals (MDG) which it replaced, both in its aspiration to encompass a substantially broader agenda and through its explicit recognition that these were global concerns, affecting all nations, and requiring global actions, to address them. One notable example of this transformative vision was the recognition that health burdens went beyond the MDG focus on a selection of infectious diseases and maternal and child health which were leading causes of the burden of disease in low income countries. Non-communicable diseases, mental health and substance abuse received recognition, and targets and indicators related to these were specified (Panel 1). With this, decades of science and advocacy for mental health to achieve its rightful place in the global development agenda had finally borne fruit.

[Panel 1 here: United Nations Sustainable Development Goals (SDGs) specifically pertaining to mental health]

Global Mental Health has played a key role in the inclusion of mental health in the SDGs. Global health has been variously defined as a field which “places a priority on improving health and achieving equity in health for all people worldwide”.¹ In line with its parent discipline, the focus of Global Mental Health has been on reducing mental health disparities between and within nations.² The field of Global Mental Health is the product of decades of inter-disciplinary research and practice in diverse trans-national contexts. A series of publications from the early 1990s (Figure 1), led to a ‘call to action’ in this journal in 2007 to ‘scale up services for people affected by mental disorders built on the twin foundations of cost-effective interventions and respect for human rights’ in all countries of the world, and in particular in low and middle income countries (LMICs) where the realization of these rights was most seriously compromised.³

[Figure 1 here: Milestones on the road to Mental Health and Sustainable Development]

The goal of this Commission is to reframe global mental health within the new paradigm of sustainable development. We propose a significant expansion of the agenda of Global Mental Health, building on its achievements while also recognizing the limitations of its extant principles and strategies. This Commission attempts to reframe the existing agenda of Global Mental Health in a number of ways. First, our scope is global, i.e. we address concerns which are relevant in all countries; when it comes to mental health all countries are ‘developing’ to some degree for there are vast inequities in the distribution of and access to mental health resources not only between but also within countries. Instead of the orthodox classification of countries according to their income status, we adopt a resource based classification of contexts in our thinking. We advocate for countries to utilise available planning tools to set their own targets for inputs (such as budgets, staff and beds), processes (such as numbers of skilled providers) and outcomes (such as improved mental health).⁴ Second, from a nosological perspective, we acknowledge that the binary approach to the diagnosis of mental disorders, while of utility to health professionals, does not adequately reflect the dimensional nature of mental health. We propose a hybrid staged model in its place and seek to show how such an approach is not only of utility to providers across the spectrum from community health workers to mental health professionals, but also more accurately reflects the true distribution of symptoms of mental ill-health, is more attuned to the lived experience of persons with mental disorders, and optimizes the rational allocation of resources for interventions. Third, from an aetiological perspective, we emphasize a convergent model of mental health, recognizing the complex interplay of psychosocial, biological and genetic factors, acting across the life course, but in particular during sensitive developmental periods of childhood and adolescence. Fourth, we call for the actualisation of mental health as a fundamental human right for all people with a specific focus on those who face the gravest danger of their rights being denied, notably people living in institutions (including prisons), those who are homeless, and those such as refugees who are affected by severe adversities such as conflict.

It is in this context of reframing mental health that this Commission seeks to emphasize the existing Global Mental Health goal of reducing the treatment gap or, more accurately, the ~~treatment and~~ “care” gaps,⁵ for people affected by mental disorders. We also seek to reduce the burden of mental disorders by addressing the quality gap (i.e. the quality of the care received by persons with mental disorders) and the prevention gap (i.e. the coverage of interventions which target the risk factors for mental disorders). This goal can only be achieved through the combined actions of the prevention of mental disorders alongside the effective clinical and social care of people with mental disorders. We include dementia and suicide within the scope of our Commission because the primary focus of care for dementia is related to its impact on the mental health of the affected person (and care-givers) while suicide is very often the consequence of mental disorders.

Before we endeavour to chart out the principles for reframing Global Mental Health and its implications for policy and practice, it is pertinent to briefly review the history of this field of and its impact and limitations.

The History

The initial perspective on Global Mental Health was characterized by two distinctive epistemologies: the “emic” approach of social anthropologists and cultural psychiatrists who analyzed mental disorders as shaped by social and cultural forces; and the “etic” approach of clinicians and epidemiologists who analyzed mental disorders as if they were biologically no different from other medical disorders, and could therefore be conceived as universal conditions. From the 1970s onwards, a new generation of inter-disciplinary collaboration, including the work of scholars whose own expertise bridges the divide, led to the emergence of a “new cross-cultural psychiatry”^{6,7} which recognized the key contributions, and complementarities, of both schools and promoted the study of mental disorders in diverse populations with balanced acknowledgement of their universal features and the crucial contribution of contextual and cultural influences. This body of work led to four transformational shifts which presaged the emergence of Global Mental Health.

The first shift concerned the “what”, viz., the nature of mental disorders and, consequently, the content of interventions. The biomedical approach was progressively considered just one among other dimensions of mental health. In an historic article, George Engel coined the expression ‘biopsychosocial’.⁸ Subsequent contributions demonstrated the multifaceted nature of etiology and treatment of mental disorders, leading to the conclusion that mental disorders should not be considered as conditions of persons always in transaction with social and environmental contexts. The concept of “social suffering” encompassing the whole range of human problems that result from political, economic, and institutional power, emphasized the need for structural and social interventions as critical components of a comprehensive response to address mental health problems.⁹ Simultaneously, substance use disorders were conceptualized as complex chronic health conditions with a relapsing nature, challenging their conceptualization as moral failure or a criminal behavior, implying a transformation from a criminal justice approach to a public health approach.¹⁰

The second shift concerned “where” mental health care is provided and was represented by the progressive shift from “institutional care” to “community care”, a process sometimes referred to as ‘de-institutionalization’. Due to a reframing of the ethical, social and administrative considerations related to mental health care, the availability of new drugs and the growth of the human rights movement, the number of psychiatric beds started declining from the 1950s in many high-income countries. Some clinical and rehabilitation activities were moved outside hospitals, psychiatric wards were created in general hospitals and mental health was integrated in primary health care, entirely replacing the psychiatric hospitals in some countries such as in Italy¹¹ or moved into the community as in the remarkable Aro Village System in Nigeria.¹²

The third shift, concerns “who” is the provider. Mental health promotion, prevention, treatment of and recovery from mental disorders were no longer the prerogative of a single group of experts, a

role historically played by psychiatrists. Instead a diversity of persons have become active in this arena, - from a range of mental health professionals to a range of non-specialist providers such as community health workers, teachers, law enforcement officers. and, as exemplified by the fourth shift, users and care-givers. In short, mental health was considered everybody's business.¹³

The fourth shift is exemplified by the expression "nothing about us without us". This has been much more than a slogan borrowed from disability activism by persons with the lived experience of mental disorders claiming their empowerment; it is becoming a fundamental, rights-based component of the ethos of mental health care provision and research,¹⁴ from championing the engagement of users in service delivery to recognition of the recovery approach, which places the wishes and expressed needs of persons affected by mental disorders at the heart of mental health care.¹⁵

The scientific foundations

These shifts have been buttressed by evidence in four domains which led to the formal emergence of the discipline of Global Mental Health.

The social determinants of mental disorders: There was Emerging research has provided consistent evidence of the strong association between social disadvantage and poor mental health. Poverty, childhood adversity, and violence emerged as key risk factors for the onset and persistence of mental disorders which, in turn, were associated with loss of income due to poorer educational attainment, lower employment opportunities and lower productivity.¹⁶ These complex and multi-directional pathways led to a vicious cycle of disadvantage and mental disorders and, ultimately, suggest a critical role for mental disorders in the inter-generational transmission of poverty.

The Global Burden of Disease attributable to mental disorders: A transformative methodological breakthrough occurred in the early 1990s with measurement of the global burden of disease in Disability Adjusted Life Years (DALYs) – for the first time allowing for comparison of the burden of mental disorders with other health conditions, by estimating their contribution to both years of life lived with disability and to premature mortality. The Global Burden of Disease attributable to mental disorders (primarily through years lived with disability), led by depressive and alcohol use disorders, was large at the time of the first report in 1993³⁶, and has shown a steady rise in the subsequent two decades, in part due to demographic and epidemiological transitions (Figures 2 and 3)¹⁷. Even this high burden is likely to be an under-estimate due to the non-inclusion of dementia and suicide in the burden attributed to mental disorders, and high levels of premature mortality associated with mental disorders.¹⁸ For example, although less than a million deaths are attributed to mental disorders, natural history models showed that about 13 million excess deaths occurred in 2010 in people with mental disorders.¹⁹

[Figures 2 here: The rising Burden of Mental & substance use disorders; Alzheimer's Disease and other Dementias; and Suicide (Self-harm) by Socio-Demographic Index (SDI) Groups]

[Figure 3 here: The Global Burden of Mental & Substance Use Disorders Alzheimer's Disease and other Dementias; and Suicide (Self-harm) (in DALYs) across the life course]

Inadequate investments in mental health care: The allocations for mental health care in national health budgets (and, similarly, the equally small investments in mental health research in health research budgets), were disproportionate to the burden of mental health conditions in all countries. Even this relatively small investment (less than 1% in low income countries)²⁰ was largely spent on mental hospitals, ~~typically~~ large stand-alone institutions, cordoned off from the community, ~~mostly many of which were built during the colonial period, decades ago and primarily performing a custodial role.~~ Thus, the funding allocated for community oriented, person-centred care with a focus on integration in routine health and social care platforms, was negligible. (Figure S1: Some

key indicators for Global Mental Health & Sustainable Development by income category of countries)

The near-absence of access to quality care globally: A consequence of this low investment was the very large treatment and care gaps for people with mental disorders. The World Mental Health Surveys with 84,850 community adult respondents in 17 countries observed that the proportion of people with an anxiety, mood or substance use disorder using any mental health services in the prior 12 months ranged from 1.6% in Nigeria to 17.9% in the United States.²¹ Further, the quality of care received by many people, in particular those affected by severe mental disorders and disabilities, was poor in all countries and was often associated with abuses of their fundamental human rights, for example through the experience of forced restraints, physical and sexual violence, and torture (Figure 4).²²

[Figure 4 here: Torture and incarceration of people with mental disorders]

The impact

This rich inter-disciplinary heritage laid the foundation for the landmark 2007 Lancet series on Global Mental Health. The conclusion arrived at by 38 authors of this series of articles was that the high burden and unmet needs for care constituted a global health crisis. After much deliberation on what might be the most urgent, clear and specific 'call to action' for the global health community, the authors chose to focus on the needs of those individuals affected by a mental disorder, calling for actions to reduce the treatment gap by scaling up the coverage of services for mental disorders in all countries, but especially in LMIC.³

The years following the publication of the Lancet series witnessed a tangible increase in attention to the treatment gap in LMIC as evidenced by the increase in development assistance for mental health which more than doubled in absolute dollars in the years immediately after 2007.²³ The WHO launched its flagship *Mental Health Gap Action Programme* (mhGAP) to scale up care for mental, neurological and substance use disorders in LMIC²⁴ and developed a series of seminal publications which provide guidance to health practitioners in non-specialist settings on treatments for these disorders, track the status of mental health systems at the country level,²⁵ and establish standards of care.²⁶ The Comprehensive WHO Mental Health Action Plan (2013-2020) agreed by all nations of the world, set out a road-map for achievement of a broad range of mental health related targets.²⁷ The Disease Control Priorities Network published its recommendations showing governments and development agencies which interventions should be scaled up through diverse platforms from the community to specialist care, ultimately forming the mental and neurological health component of the package of interventions for Universal Health Coverage.²⁸ Notably, both these reports took a much broader view of mental health, emphasizing the continuum from the promotion of mental health and prevention of mental disorders, to treatment, long-term care and recovery and inclusion of persons with mental disorders.

Concurrently, reform initiatives in specific countries influenced and promoted a public health approach to mental health care. In Brazil, the government sought to correct decades of emphasis on psychiatric institutions with a more balanced provision of medical and psychosocial interventions in community based settings.²⁹ India passed a landmark Mental Health Care Bill in 2017 entitling persons with mental disorders to access comprehensive medical and social care services in community settings.³⁰ Ghana passed a revised Mental Health Act in 2012, after years of advocacy by a coalition of the mental health community, NGOs, the Ministry of Health and WHO. China's commitment to mental health care is exemplified by its new mental health law (2012) and massive expansion of coverage of care through its 686 program.³¹ England launched a national program for improving access to evidence based psychological treatments.³² Countries affected by conflict or natural disasters, such as Sri Lanka and Rwanda, used the crisis-response to the mental health care needs of traumatised and displaced populations as the foundations for a sustainable mental health care system.³³ Global age-standardized suicide rates have fallen by 24% in the period from 1990 to 2016 (China alone witnessed fall of more than 50%), **most likely attributable to**

~~a public health approach towards addressing the risk factors for suicidal behaviour~~the precise reasons for which remain uncertain.¹⁷

In 2011, the Grand Challenges in Global Mental Health initiative, led by the US National Institute of Mental Health (NIMH), provided implementation research questions as the priorities to reduce the treatment gap for mental disorders (Panel 2).³⁴ This publication was followed by a slew of new research initiatives including nearly US\$60 million between 2011 and 2016 by NIMH to support research and training in Global Mental Health as well as a series of 16 international “hubs” for research on task-sharing and scaling up mental health interventions. In addition, Grand Challenges Canada invested \$42 million CAD to support 85 projects addressing some of these priorities in 31 LMIC. In 2017, the Global Alliance for Chronic Diseases consortium of funding agencies selected Global Mental Health for its annual call, while the Research Councils in the UK invited bids for Global Mental Health research programs, promoting a similar implementation science agenda.

[Panel 2: The five leading grand challenges for global mental health]

Civil society began to partner with mental health professionals to promote a shared vision, the most notable example being the Movement for Global Mental Health, launched in 2008, as a virtual global alliance. By March 2018, the Movement comprised 220 member institutions representing diverse stakeholders, from academics through to persons affected by mental disorders.³⁴ The Movement has been led, since 2013, by persons affected by mental disorders (the current leader is an author of this Commission). Its fifth Summit, in Johannesburg in February 2018, witnessed the launch of a Global Mental Health Peer Network. In several countries, prominent individuals have disclosed their personal accounts of living with mental disorder, indicating the growing recognition of this form of human suffering. The field of Global Mental Health has become a respected discipline in its own right, with academic programs and centres in Universities around the world, specialist journals and books on the subject, and an annual calendar of scientific events; not surprisingly, the discipline has been described as having ‘come of age’.²

The limits and threats

~~Despite these tangible impacts, there are several indications which suggest that the journey towards justice for people with mental disorders globally has only just begun and potential threats remain.~~Despite these tangible impacts, there are indicators that the journey towards justice for people with mental disorders globally has only just begun. Five key indicators illustrate these limitations.

First, there is very little evidence of substantial impact of reductions in the treatment gap. The recent national surveys from India and China, home to one-third of humanity, report that more than 80% of persons with any mental or substance use disorder had not sought treatment.^{35,36} Even when treatment is sought, its quality is poor: the World Mental Health Surveys reported that just 1 in 5 people with depressive disorder in high-income and 1 in 27 in low-/lower-middle-income countries received minimally adequate treatment.³⁷ Recovery oriented community mental health services remain inaccessible to the overwhelming majority of the global population and in-patient care, including both emergency care and long-term social care, continues to be dominated by large institutions or prisons. Tens of thousands of people with mental disorders are chained in their own homes, or in prayer camps and traditional healing facilities. Poorly planned implementation of de-institutionalization typically leads to premature mortality and discharged patients being arrested and put in prison. A recent tragic case occurred in South Africa in 2016 when the Gauteng Department of Health took a decision to cease funding for a large 2000-bed facility and allowed the discharge of vulnerable people with psychosocial disability into un-licensed community residential facilities, leading to the death of over 140 people.³⁸

Second, the financial resources allocated for mental health both in spending by governments as well as in development assistance for mental health which sets the health policy for many of the poorest countries, remain alarmingly low. Despite showing absolute increases in funding since 2007, development assistance for mental health has never exceeded 1% of the global

development assistance for health²³ and was a pitiful 0.85US\$ per Disability-Adjusted Life Year (DALY) in 2013 compared with 144US\$ for HIV/AIDS and 48\$ for TB and malaria.³⁹ The allocations for child and adolescent mental health, arguably the most important developmental phase in the context of prevention, is a paltry 0.1% of total development assistance for health.⁴⁰ The economic consequences of this low investment are staggering with one estimate reporting a loss of 16 trillion US\$ to the global economy due to mental disorders (in the period 2010-2030, driven in part by the early age of onset and loss of productivity across the life course).⁴¹

Third, pharmacological and other clinical interventions for mental disorders, while potentially and actually transformative in reducing individual suffering and disability and comparable or superior to those for other chronic conditions,⁴² may have limited impact on the population level burden of mental disorders. A recent analysis of data from 1990 to 2015 from four high-resourced countries (Australia, Canada, England and the US) show that the observed prevalence of mood and anxiety disorders and symptoms has not decreased, despite substantial increases in the provision of treatment, particularly antidepressants, and no increase in risk factors. The authors called for attention to the “quality gap” and “prevention gap”, including investments in early interventions.⁴³ Compounding this limitation, advocacy for mental health has been hampered by the reliance on input indicators and, to a more limited extent due to paucity of data, on process indicators rather than outcome indicators (e.g. improved mental health).

Fourth, multiple transitions facing the global population act as drivers for poor mental health, notably the increase in some social determinants, such as pandemics, conflict and displacement, increased global income inequality, growing economic and political uncertainties, rapid urbanization and environmental threats such as increased natural disasters associated with climate change.^{44,45} Major demographic and epidemiological transitions are in progress globally, characterised by both a growth in young populations in LMIC and a steadily ageing global population bringing with it a rising tide of people entering the risk period for the onset of mental disorders, in particular psychoses, substance use and mood disorders (which have their onset in young adulthood) and dementia (which has its onset in older age). While some social transitions are likely to be salutary for mental health, for example the reductions in the proportion of the population living in absolute poverty, the increase in other adverse social determinants such as income inequality coupled with demographic transitions are likely to lead to an overall increase in those at risk of mental disorders, as is already evident from the dramatically increasing contribution of mental disorders to the Global Burden of Disease.

Fifth, the biomedical framing of the treatment gap has attracted criticism from some scholars and activists championing a cultural perspective and representing persons with the lived experience of mental disorders. These voices fear that a biomedical emphasis will take priority over indigenous traditions of healing and recovery, medicalize social suffering, and promote a ‘western’ psychiatric framework dominated by pharmaceutical interventions.⁴⁶ A fresh area of tension has become visible between those who believe that the Convention of the Rights of Persons with Disabilities (CRPD) enshrines the right to autonomy in decision making about treatment to all persons with mental disorders (or psychosocial disabilities, the term used in the CRPD) in all circumstances, and those who believe that mental health laws lay down appropriate guidelines which allow for substituted decision making in the best interests of the individual, when the mental disorder profoundly interferes with the person's capacity to make informed decisions.⁴⁷

Finally, Several barriers prevent bringing of the large body of science into action, globally and nationally, in particular in LMIC. These barriers pose systemic and systematic threats which need to be acknowledged and addressed explicitly if we are to see substantive change. First, compared to the experiences of other global health movements (for example, HIV/AIDS and maternal and child health), advocacy for mental health has been hampered by the reliance on input indicators and, to a more limited extent due to paucity of data, on process indicators rather than outcome indicators (e.g. improved mental health).

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Second, advocacy for global mental health has been threatened by fragmentation resulting from diverse constituencies and diverse scientific perspectives. From the happiness agenda promoted by some economists, to specialist care for mental disorders promoted by clinical practitioners, to fighting discrimination promoted by civil society activists, to mapping the human brain promoted by neuroscientists - each offers a distinct perspective and direction to pursue. An example is the concerns of mental health professionals that they may lose professional identity and power, or that clinical standards might be compromised through the adoption of task sharing models of care. This leads to divergent or even contradictory messages cast to Governments by the diverse stakeholders concerned with mental health, resulting in the lack of a coherent case to prioritize mental health.

Third, Compounding this fragmentation within the field, there has been and perhaps still is, the risk of Global Mental Health becoming yet another silo, unlinked to other momentous initiatives in global health, such as Every Woman Every Child, Global Accelerated Action for the Health of Adolescents (AA-HA!) or Universal Health Coverage. This is exemplified by the lack of adequate engagement with mental health in the training and practice of general health care professionals or the agenda of global health policy and funding on the one hand, and the lack of engagement with the global health and development agenda in the training and practice of mental health professionals on the other.

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Mental health in the era of Sustainable Development

Ten years on from the first Lancet series which helped propel mental health into the global health spotlight, it is time to consider where the field should head in the next decade and beyond. While it is plainly evident that the existing agenda to improve the detection of mental disorders and access to care is still very far from being attained and remains a priority, even its attainment alone is unlikely to lead to a substantial impact on the SDG targets or reducing the global burden of mental disorders unless the agenda is significantly expanded to address the 'prevention' gap and the 'quality' gap in mental health care.⁴³ This Commission proposes a broadening of the scope of Global Mental Health. Building on three guiding principles for reframing mental health outlined earlier, this Commission synthesizes evidence and advocating four on innovative strategies on and strategies to scale up evidence based interventions around to achieve three objectives: the prevention of mental disorders; the treatment and care of mental disorders; and enabling recovery and social inclusion of persons with mental disorders (Panel 3). Key cross-cutting themes through these interventions are: 1) the need to act early, both in the life course and in the course of the emerging mental disorder; 2) promoting the use of innovative opportunities to leap-frog barriers to enhancing the coverage of interventions such as task-sharing of psychosocial interventions to non-specialised workers and leveraging digital technologies to promoting the use of innovative approaches to enhance intervention coverage, such as task-sharing the delivery of psychosocial interventions and leveraging digital technologies to promote self-care and coordinate care across platforms of delivery from the community to specialist care. 3) ensuring that the perspectives, rights and needs of people affected by mental disorders are at the heart of research, policies and services; and 4) emphasizing the role of diverse sectors to ensure a comprehensive response to the social, biological and developmental determinants of mental health.

Our final section draws together the evidence to demonstrate how countries, communities and citizens can enact these strategies, in particular addressing the pervasive structural and attitudinal barriers to addressing Global Mental Health priorities. We build on the Grand Challenges in Global Mental Health³⁴ to propose the directions for future research and present a preliminary blue-print of the range of indicators capturing the determinants of mental health, the delivery of mental health interventions, and their impact on populations, which may be used to monitor the progress of countries in achieving the SDG target and indicators for mental health.

[Panel 3: A fresh perspective on global mental health and sustainable development]

The global community now has an historic opportunity to reframe the Global Mental Health agenda in light of a broader conceptualization of mental health and disorder, and to position this agenda as an integral element of the SDGs. These opportunities are exemplified by the passage of the WHO's Comprehensive Mental Health Action Plan, the explicit acknowledgement of mental health as a global development issue in the landmark summit hosted jointly by the World Bank and WHO in April 2016, the inclusion of mental health in the agenda of the WHO's High Level Commission on Non-Communicable Diseases,⁴⁸ the potential for a grand convergence across disciplines, both at the level of etiology as well as practice, and the growing consensus and convergence of partners and stakeholders. This Commission seeks to build on these unique opportunities to pave the way for a reframing of mental health by bringing together knowledge and evidence drawn from diverse disciplinary perspectives and offer a fresh, ambitious and unified vision for action. Our goal is to ensure that the vision of mental health as a global public good, central to the concept of human capital,⁴⁹ is realized, not only to accelerate the attainment of the mental health specific goals of the SDGs but of many other SDGs as well.

SECTION 2: REFRAMING MENTAL HEALTH

Section 2 presents three guiding principles that underpin this report. The first principle is the expansion of mental health from the existing focus on clinically defined 'mental disorders' to a broader *dimensional approach to mental health*. This approach leads to the next guiding principle, which introduces a '*convergence*' model of mental health – aligning evidence from diverse fields including developmental, social and biological determinants of mental health. The final principle upholds mental health as a universal and basic human right. From a social justice perspective, this emphasizes the rights of populations in vulnerable circumstances, who are at greater risk to their mental health (such as those who are fleeing conflict), as well as the rights of people already living with mental disorders.

Dimensional Approach to Mental Health

Mental health and mental disorders have been understood in a wide variety of ways by different historical and cultural traditions, and by different academic disciplines. Recent trends in global health and development, including those prompted by the SDGs, necessitate a reflection on the conceptual basis of mental health, wellbeing, mental disorder, and psychosocial disabilities. In this section, we aim to describe the nature and dimensions of mental health and mental disorder, to provide a useful framework for debate, research and action. This task entails expanding the vision of global mental health in three ways. First, balancing the focus on treatment, rehabilitation, care and recovery with an equal emphasis on the promotion of mental health and the prevention of mental disorder, particularly interventions early in the life course. Second, adopting a staging approach to the identification and classification of mental disorder, recognising the potential benefits of intervention at each stage. Third, embracing diverse global experiences of mental health and disorder, so as to tailor the range of interventions more appropriately, and promote mutual learning. We begin by laying out key terms that are used to define the scope of mental health (Panel 34).

[Panel 34 here. Definitions of key terms]

Mental health and wellbeing

Mental health can be understood as an asset or a resource that enables positive states of wellbeing and provides the capability for people to achieve their full potential. Consistent with the WHO definition of health, mental health therefore does not simply imply an absence of illness. What then is the relationship between mental health and mental disorder? Clearly, the two exist on a continuum: gains in mental health predict decline in mental disorders at a population level over time.^{50,51} However, this is not a linear relationship: an individual may have symptoms of a mental disorder and associated distress and disability but this does not mean that person cannot also

enjoy a certain degree of mental health which is consistent with their expectations of being satisfied with their life and achieving their potential.⁵²

Wellbeing is a positive construct which incorporates two related ideas: subjective satisfaction with life and positive affect or mood (the hedonic tradition), and meaningful functioning and human development (Aristotle's eudaimonic tradition). The movement promoting wellbeing and happiness as a core indicator of human and national development,⁵³ asserts the relevance of both dimensions, though with varying emphases. Some metrics, for example of 'national wellbeing',⁵⁴ attempt to capture population level determinants of wellbeing, such as mental and physical health and longevity, but also a sense of economic and social security, productivity and social relationships. A related concept is subjective quality of life, that compares people's perceptions of their life [with-in relation to](#) their goals and expectations. There remain several ongoing challenges with measuring well-being cross-culturally, not least due to diverse social and cultural norms regarding perceived happiness and satisfaction with life.

Pertinent to mental health in this context is Amartya Sen's view that development can only be achieved when people have real freedoms in their social contexts.⁵⁵ According to this view, having practical access to the things that a person values will lead to greater wellbeing (a "good life"). But exposure to severe social or economic adversity undermines the fundamental mental health capabilities that make real freedom possible. Furthermore, wellbeing is restricted for people with mental disorders by a system that tends to discriminate against them. Social contexts underlie much of the distress people experience, including structural inequities which seem to have a particularly negative effect on mental health and wellbeing.⁵⁶ This 'social suffering' is an important counterpoint to the tendency to focus on internal causation, and provides a valuable perspective on the limited role of traditional curative health services in overall population wellbeing.⁹

It is an axiom of public health that the majority of population benefit is to be gained from promoting factors that facilitate good health, and avoiding causes of ill health, rather than solely treating conditions once they are present.⁵⁷ Global mental health has much to gain by supporting sectors engaged in human development to incorporate evidence-based interventions that can prevent mental disorders and enhance the mental health and wellbeing of populations. An expanded agenda for mental health is therefore required, which ranges from promotion and prevention (the latter two which overlap considerably, in particular when considering primary prevention) to treatment and rehabilitation, mapping the dimensions from good to poor mental health, and from risk factors to the presence of mental disorders and disabilities. This allows greater clarity in developing effective policy interventions for mental health, and in guiding investment and research. It involves improving mental health, reducing and/ or delaying the incidence of mental disorders, shortening episodes of illness, and maximising participation and quality of life throughout the illness course.

A staging approach for mental disorders

The importance of a dimensional approach to mental health leads logically to a consideration of how we describe and classify mental disorders. Classification systems, like the International Classification of Disease (ICD) and Diagnostic and Statistical Manual of Mental Disorders (DSM), have tended to reify syndromes (similar sets of symptoms and observations, or 'signs') by categorising them as discrete 'disorders' in a similar way to physical illnesses. Using categorical terminology is relatively simple to understand and apply, in particular by policy makers and clinicians. Various methods have been used to add nuance to binary (presence or absence) categories in these systems, for example the Multi-Axial approach of DSM-IV, which was replaced by a hybrid dimensional-categorical approach in parts of DSM-5. WHO's proposed diagnostic guidelines for mental and behavioural disorders in the Eleventh Revision of the International Classification of Diseases and Related Health Problems (ICD-11) recommends severity ratings and other qualifiers, while at the same time retaining its clinical utility as a categorical diagnostic classification system.⁵⁸

Despite these relative improvements in nosology, the limitations of diagnosis must be recognised. Diagnosis can at times lead to unhelpful labelling, diminishing the agency of the affected individual, promoting a reductionist perspective, and over-simplifying and under-valuing complexities of personal circumstances.⁵⁹ The diverse experiences of mental health and mental disorder between individuals, over time for the same individual, and across cultures, suggests that diagnosis can be simplistic, and not always helpful. In fact, the evidence points to great overlap in these putatively discrete disorders, and the range of severity of distress and disability can be better captured by using a combination of continuous and categorical approaches, depending on settings and individual needs. Further, recent genomic studies have shown that many risk **alleles-variants** are shared across clinically discrete phenotypes, such as autism, schizophrenia, bipolar disorder, depression, and alcoholism⁶⁰. The implications for re-envisaging diagnoses remain somewhat unclear: some genomic research has already led to delineation of possible etiological pathways (e.g. potential role of the complement system in schizophrenia), but it is also likely that individual small genetic effects will not readily allow insights into complex pathways purely through genomic analysis.⁶¹ Similarly, new targets emerging from genome wide association studies have the potential to lead to new pharmacotherapies, but such work also faces significant challenges (Panel S1: Genomics in global mental health). Nevertheless, these findings are consistent with dimensional approaches of symptom spectra rather than discrete categories of mental disorder.⁶²

Field Code Changed

These insights into the biological basis for some conditions serve to strengthen theories based on multiple interacting biological and environmental factors, affecting development throughout the life-course. The Research Domain Criteria (RDoC) framework⁶³ aims to uncover underlying mechanisms ("deep" phenotypes) that influence cognitive, affective and behavioural functioning, using evidence from diverse disciplines. Deep phenotyping involves the collection of observable physical and behavioural traits of an organism down to the molecular level.⁵¹ When anchored by a carefully constructed clinical profile, the resulting multi-level biomarker set may provide more precise aetiological understanding, and could eventually produce a more accurate way to describe and classify mental health conditions than current diagnostic classification systems. A future hope for deep phenotyping is that it will enable precision mental health care; that is, it will be possible to stratify people living with mental disorders according to understanding of a common biological basis of disease. This may in future lead to identification and more effective management of subtypes of disorders linked to underlying disease mechanisms, such as depression linked to underlying immune dysfunctions.⁶⁴

It is important to clarify that this Commission does not advocate the abolition of classification systems, which clearly have an ongoing clinical utility. How then do we combine the need to recognise diversity and continua, with the requirement of clinicians and researchers for a better categorical classification? One approach is to assess functional impairment: mental and substance use disorders are generally conceived as emotional, cognitive or behavioural disturbances that have reached a threshold that causes *significant functional impairment*, so that individuals struggle to fulfil their desired social roles in their community.⁶⁵ This emphasis on functional impairment is an essential criterion to identify the point at which a person might be considered to have a disorder, or diagnosis. For this reason, the measurement of functional impairment in diverse cultural and socio-economic contexts remains an important priority for global mental health research.⁶⁵

However, functional impairment cannot be the only criterion to guide detection and intervention, as it is important to intervene early, before significant disability sets in. Typically, by the time a diagnosis of mental disorder is made, a lengthy prodromal period has occurred during which a person's functioning has declined gradually and opportunities for early intervention have narrowed. However, in early stages, symptoms are often transient, mixed and reactive to circumstances. Only as the condition progresses or persists does a clearer picture of symptoms and signs point towards a diagnosis and interventions during these prodromal stages can lead to better outcomes (Figure 5).⁶⁶ Where more severe mental disorders develop, they tend to divide more clearly into the syndromes that have been the focus of most clinical and epidemiological research historically, with clearer benefit from specific clinical interventions for such disorders. In cases of non-specific

psychological distress, a diagnosis may not be possible or helpful, but a recognition of need for care can lead to appropriate support and engagement, promoting self-care, or simply closer monitoring.

[Figure 5 here: A staging approach to the detection and treatment of mental disorders]

The *staging model* offers a potential workable compromise between the dimensional and diagnostic approaches, as it recognizes opportunities for intervention at all stages of the pathway from wellbeing through different stages of disorder.⁶⁷ Staging implies modifiability at the individual level with appropriate treatment and care for mental disorders, and at a population or group level by addressing relevant risk factors or strengthening environments that promote mental health. Population-level interventions for prevention of ill health require less targeting, and would benefit those with and without clinically significant symptoms, while more focused attention could be paid to ensuring access to appropriate treatment for those progressing to more severe stages of mental disorder. Between these stages are those with some symptoms, but not sufficient to form a diagnosis – conditions that may be referred to as “sub-syndromal” or “sub-threshold”. While we currently lack sufficient means of accurately predicting who will develop full syndromes and who will respond to our existing interventions, recent promising data have been produced, for example on risk calculators for psychosis.⁶⁸ The staging model is particularly relevant in the critical developmental phase of adolescence and youth.⁶⁹ The combination of the epidemiology of the onset of most mental and substance use disorders, the critical developmental transition from childhood to adulthood, together with the fact that interventions at this stage carry high potential for short and long-term benefit mean that greater priority must be given to adolescent and youth mental health.

A setting where this staging model is particularly useful is in primary care, where patients often present with less severe and more mixed symptoms, which are not well aligned to categorical classification systems. Primary care algorithms need to focus on symptom-based management by primary healthcare workers and identify risk factors that might guide which patients are at higher risk for developing more severe conditions and require referral. Common symptoms of mental distress like anxiety or low mood are associated with more total disability at a population level, than diagnostically defined mental ‘disorders’.⁷⁰ It is important that front-line providers know how to address these concerns, rather than feeling helpless because of the lack of a clear diagnosis which their training tends to promote as a first essential step to treatment. An example is the Practical Approach to Care Kit (PACK), which integrates the identification and management of signs and symptoms of mental disorders into general clinical guidelines for nurses and doctors.⁷¹ Trans-diagnostic psychological interventions might be particularly relevant in this context (see Section 3),⁷² and other sectors such as education, social support, housing or poverty alleviation may need to be engaged.

Ultimately, people are entitled to define their own outcomes of treatment success in the perception of their own lives. This is the promise of a dimensional approach to mental health and the hybrid staging model for the identification and treatment of mental health problems. Such an approach allows clinicians to work in a collaborative multi-dimensional manner, working with a full range of phenotypes and underlying biological and social mechanisms, while still making use of accumulated knowledge about effective interventions for diagnosable disorders.

Universal human and unique contextual experience

The field of Global Mental Health has inevitably grappled with concerns about using predominantly biomedical models originating in the global north to define health, illness and treatment across cultures with diverse perspectives on mental health and mental disorder (see Section 1). The need to promote and provide evidence-based treatments to people who might benefit from them must be balanced with acceptance and respect for the wide range of experiences and behaviours inherent in global human diversity. Illness narratives are often closely linked to adjustment to social adversity or trauma, and carry a specific meaning within the local cultural context.⁷³ Equally, there

are many universal features in how humans experience illness across cultures;⁷⁴ emotional pain is as fundamental to human experience as physical pain. A recent systematic review has demonstrated common features in the experience of depression across diverse contexts.⁷⁵ The universal nature of psychological distress has also been demonstrated in relation to the effectiveness of 'common elements' approaches to the delivery of psychological therapies across diverse contexts (see Section 3).⁷⁶ Global mental health practitioners have demonstrated that it is possible to integrate understanding of local explanatory models of illness experiences, while respecting the complementary role of western biomedical and local traditional approaches to treatment.⁷⁷

Even with better scientific understanding of the biological, developmental and genetic causes of mental disorder, it is essential to see the person affected within his or her social context, and to pay attention to their understanding of their problems, their preferences and priorities. The *recovery movement* has pioneered a powerful route to addressing different perspectives in defining illness and deciding on treatment options. This approach emphasises the centrality of the person affected in defining her or his problems and what a successful outcome might be.⁷⁸ This shared decision-making shifts agency to the person, promotes a more equitable power balance and therapeutic relationship, and is in itself empowering. Medical or psychiatric treatment becomes one of a range of potential solutions, which are likely to also encompass drawing on community and personal resources.

Such an approach is also in line with a *social model of disability*, which argues that the extent of a person's disability is largely determined by the social environment rather than simply by the impairments themselves (this point is discussed later). Acknowledging the impact of stigma and discrimination on people's lives is an example of the potential benefits of this approach.⁷⁹ The tendency to restrict choices for people deemed to be incapable of making decisions robs them of agency, which is an important component of wellbeing. At a service level, improving the experience of service users goes hand-in-hand with improved quality of, and satisfaction with services, and results in better outcomes.⁸⁰ Such a perspective is also well aligned to the human rights approach now guiding policy in both government and civil society sectors (see below).

Convergence in understanding the determinants of mental health

While there have been major advances in knowledge and understanding in diverse approaches, what is remarkable in recent years has been the convergence between areas of enquiry, in particular within a life course paradigm. By 'convergence' we mean a non-reductionist approach that leverages knowledge from diverse disciplinary traditions to illuminate the determinants of a complex human concern. A convergence approach should enable both the development of a stable and testable multi-factorial theory and of context-specific and sensitive frameworks to guide interventions. At the heart of this convergent understanding of mental health is the unique, individual level interaction between diverse determinants across the life course, from conception to death.

We will briefly review the key findings on the diverse determinants of mental health, ~~and~~ then describe how these ~~can be 'converged'~~ converge and ~~discuss~~ -their implications for understanding the aetiology of mental health problems and ~~for~~ the mechanisms and timing of interventions.

Social determinants of mental health

Social determinants include a range of social and economic factors that influence the mental health of populations. These include structural social and economic arrangements such as poverty and income inequality, which confer advantage or disadvantage from conception to old age; differential exposure to adverse life events such as humanitarian emergencies and interpersonal violence; and the specific conditions of vulnerability and resilience that these arrangements and exposures produce.⁸¹ Many of the SDGs address these social determinants explicitly, and progress towards their attainment has the potential to promote mental health and to reduce the global burden of

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mental disorders and inequities in the distribution of mental disorders in populations. The social determinants of mental health encompass five key domains: the demographic, economic, neighbourhood, environmental and social/cultural domains.⁸² These act across distal and proximal levels (see Figure 6). Distal levels refer to the upstream, structural arrangements of society, and proximal levels refer to the way these arrangements are experienced by individuals and families.

[Figure 6 here. Social determinants of mental health and the Sustainable Development Goals]

The *demographic* domain includes gender, age and ethnicity. There is substantial evidence that women are at increased risk of common mental health problems such as depression and anxiety and that men are at increased risk of substance use disorders.⁸³ SDG Goal 5 (Gender equality) is particularly relevant for this domain. Several studies have shown the manner in which gender disempowerment interacts with other adversities such as poverty, gender-based violence, sexual harassment and food insecurity to increase the prevalence of common mental disorders among women.⁸⁴ ~~In addition to gender,~~ Risk factors and patterns of the morbidity of mental disorders also vary significantly across the life course, and most mental disorders have their origin in childhood and adolescence. On the other hand, dementias have their onset in older age. Ethnic minority populations, particularly in the context of racial discrimination or migration, are vulnerable to a range of disorders including psychosis, depression and anxiety disorders.⁸⁵

The *economic* domain includes income, food security, employment, income inequality and financial strain. SDG Goal 1 (No poverty), SDG Goal 2 (Zero hunger), SDG Goal 8 (Decent work and economic growth), SDG Goal 9 (Industry, innovation and infrastructure) and SDG Goal 10 (Reduced inequalities) are particularly relevant for this domain. There is now robust evidence that worse economic status is independently associated with a range of adverse mental health outcomes, including common mental disorders, psychosis and suicide.¹⁶ Economic adversity exerts its influence across the life course: poverty negatively affects neurodevelopment and the mental health of children,⁸⁶ children in lower socioeconomic positions are at increased risk of mental ill-health in adulthood,⁸⁷ and there are associations between low socioeconomic status at birth and risk of psychosis in adulthood.⁸⁸ Social causation and social drift/selection are pathways that are widely acknowledged to maintain the cyclical relationship between poverty and mental disorder.⁸⁹ Income inequality erodes social capital (including social trust) and amplifies social comparisons and status anxiety, a recent meta-analysis has shown a consistent association between depression and income inequality.⁴⁵ This is of particular concern in the light of growing inequity in the distribution of resources both within and between nations. A particularly dangerous structural determinant of mental health is that of the influence of the commercial interests on many social determinants, for e.g. in worsening inequality or conflict. Economic interests of the alcohol industry often prevent public health oriented alcohol policies especially within LMIC.⁹⁰ A catastrophic example of the commercial agendas of industry is demonstrated by the ongoing opioid crisis in the United States of America (Panel 45).

[Panel 45 here: The opioid use crisis in the United States of America]

The *neighbourhood* domain includes the built environment, water and sanitation, housing, and community infrastructure. SDG Goal 6 (Clean water and sanitation), SDG Goal 7 (Affordable and clean energy), SDG Goal 11 (Sustainable cities and communities) and SDG Goal 12 (Responsible consumption and production) are particularly relevant for this domain. Neighbourhood characteristics influence the mental health of populations independently of individual level markers of socioeconomic adversity. In the context of rapid urbanization across the globe, urban poverty, exposure to violence and drugs, and the degrading experience of living in crowded urban slums pose major challenges for mental health. On the other hand, well-planned urbanization can also carry benefits such as improved access to labour markets, opportunities for better education and escape from the constraints of traditional customs and expectations.

The *environmental events* domain includes exposure to violence, natural disasters (including the effects of climate change), war and migration. SDG Goal 13 (Climate action) and SDG Goal 16 (Peace, justice and strong institutions) are particularly relevant for this domain. Studies have

identified numerous adverse mental health consequences of exposure to negative environmental events such as disasters,⁹¹ whether as a consequence of civil conflict or climate change (*Panel S2: Contemporary global challenges affecting mental health*).⁴⁴ Political context, for example the presence of an authoritarian or intolerant political system, is particularly important in this regard. In addition, there is emerging evidence regarding the inter-generational transmission of traumatic experiences, for example among war veterans in Australia, and women exposed to war trauma and chronic stress in the Democratic Republic of Congo.⁹² By strengthening social institutions that reduce violence and promote peace, the SDGs have the potential to substantially prevent mental disorders and promote mental health and wellbeing.

The *social and cultural* domain includes social capital, social stability, culture, social support and education. These factors influence mental health through more proximal social arrangements such as communities and families. SDG4 (Quality education) is particularly relevant for this domain. Improving access to quality education is vital as better education develops cognitive reserve, and is protective against common mental disorders and dementia⁹³ while Educational failure and mental disorders in adolescence interact in a downward spiral.⁹⁴ Education also carries the potential to influence other SDGs that have a bearing on mental health, for example through better employment, reductions in income inequality and gender inequality. Individual cognitive and ecological social capital have also been associated with reduced prevalence of common mental disorders.⁹⁵ Culture has been shown to protect mental health through shared meaning and identity and the loss of cultural identity, for example in contexts of forced migration or indigenous communities, has been associated with negative mental health outcomes.⁹⁶ The effects of social factors on mental health are usually experienced through the important proximal social networks of families. Consequently, families can promote the mental health and resilience of individuals or increase risk for mental disorder. There are significant immediate and long-term effects on mental health of parenting and child maltreatment (including witnessing intimate partner violence), and the high prevalence of child maltreatment in its various forms has major negative public mental health consequences.⁹⁷

Frequently the domains of social determinants cluster and interact, and this has been given prominence in the emerging field of syndemics.⁹⁸ A combination of two or more social determinants of mental health is therefore likely to connote highly vulnerable populations. This in turn leads to high illness transmission, progression and negative health outcomes – populations marked by “social suffering”.⁹⁹ For example, young women who are victims of displacement following war or natural disasters and live in circumstances of poverty with threats of sexual violence and sexually transmitted infections are likely to be highly vulnerable to depression, anxiety and suicide. Similarly, unemployed urban youth in contexts of violence and substance abuse are more vulnerable. Such populations should be targeted for mental health interventions that are integrated into development or aid interventions.

Biological determinants of mental health

Early research in the genetics of mental disorder demonstrated the presence and the strength of genetic factors but could shed little light on the underlying biology of mental disorders. In recent years, cheaper and faster sequencing technologies have enabled genomic data collection consortia to investigate the genetics of mental disorder on a global scale.¹⁰⁰ Key insights from this research are that: 1) there is considerable overlap in our genetic heritage (all humans are closely related, having emerged from Africa only relatively recently), but also remarkable variation exists across different individuals; 2) such variation comprises both common and rare gene variants (alleles-variants); these variants not only act in synergy with one another together with many other variants (epistasis), and but also contribute to different multiple phenotypes (pleiotropy); 3) mental disorders have varying heritability and are polygenic, with contributions from both rare alleles variants of large effect (particularly in conditions such as autism and intellectual disability), as well as from multiple alleles-variants of small effect (particularly in conditions such as depression, anxiety disorders and schizophrenia); 4) there is varying overlap in genetic architecture across different mental and physical conditions (for example multiple variants of small effect increase the

risk for both schizophrenia and bipolar disorder, while schizophrenia and rheumatoid arthritis have negatively correlated polygenic risk).^{60,101,102}

Environmental stressors, noted earlier in this section, may impact on mental health by influencing gene expression (e.g. turning genes 'on' or 'off'). Early exposure to such stressors alongside sustained exposure can lead to worse mental health outcomes.¹⁰³ Gene expression has been found to change over the life course, through a range of mechanisms. Epigenetics has identified several important mechanisms, including methylation and histone formation, which appear to be relevant in pathogenesis of mental disorders. For example, methylation may be the mechanism underlying the specific dendritic patterns seen in the superior temporal gyrus of people living with schizophrenia.¹⁰⁴ Some epigenetic changes associated with environmental stressors are heritable across multiple generations, meaning that offspring are at increased risk of developing the phenotype associated with the mutation. Epigenetic processes are potentially reversible and could be targeted with precision interventions, as has been shown in animal models. The identification of dysregulated gene clusters, improved brain imaging technologies, and further laboratory work may provide important information to understand mental disorder, including observing epigenetic changes in the human brain and the design of new intervention strategies.

Stress in various forms has been well studied for its effects on mental health outcomes. For example, stressors such as poverty, neglect or sexual and physical abuse, may raise the level of inflammatory cytokines, and negatively impact psychological functioning.¹⁰⁵ The immune system is a biological area of emerging interest in mental health. Several studies have found that a subgroup of people with mental disorders (e.g. depression and psychosis) have altered inflammatory biomarkers.¹⁰⁶ Such findings have generated interest in re-purposing anti-inflammatories for mental disorders and in trying to understand how the immune system might be harnessed to promote mental health. Ongoing research is seeking to delineate how neuro-inflammatory mechanisms intersect with neurogenesis and apoptosis, neurotransmitter and neuroendocrine (eg the hypothalamo-pituitary axis) systems, and the gut microbiome, to impact on mental health.

The influences on the development of the brain regions underlying mental health start even before conception (because of the hereditary effects of some epigenomic processes). Many developmental disorders, for example those associated with intellectual disability, are the result of disruption in foetal brain development due to a range of factors, ranging from heavy maternal alcohol use to Zika and other intrauterine infections. Early development (0-2 years old) is an especially critical window of risk and resilience (Panel 56). However, we also now understand that the human brain is a dynamic organ, subject to ongoing changes that result from genetic, environmental, social and physiological inputs, across the life span (Figure 7: Biological and social determinants of neurodevelopment across the life course-). A key developmental characteristic of adolescence is the differential maturation of the limbic and prefrontal areas of the brain which help explain why impulsivity and risk taking, integral to many mental health and substance use outcomes, are prominent in this age group (Panel 56). Although neuroplasticity diminishes over time, research suggests that new neuronal growth and connections are evident in older age, and may be associated with the introduction of novel stimuli and exercise (Panel 65).¹⁰⁷ Neuronal death accelerates with age and is associated with cognitive decline and the emergence of dementia in old age.

Brain level information provides additional insights onto the biological pathways that contribute to mental health and mental disorder over the life course. Studies deploying functional and structural neuroimaging and electroencephalography (EEG) across diverse disorders demonstrate structural and functional differences in specific brain regions, for example in grey matter volume or in reactivity in a region of interest.¹⁰⁸ These brain level data can be brought together with neuropsychological data to iteratively identify associations between cognitive dysfunctions common to a disorder—for example working memory and episodic learning in schizophrenia-- and brain regions of theorized interest, in this case the pre-frontal and temporo-limbic systems.

[Figure 7 here: Biological and social determinants of neurodevelopment across the life course]

The Convergent Approach to Mental Health

The convergent approach attempts to explain the interactions between the diverse observations on the aetiology of mental health and mental disorders, in particular the heritability of mental disorders; the strong association between social disadvantage and childhood adversity with mental disorders; and the emergence of most mental disorders in youth (Panel 56). This convergent approach proposes that social and economic factors confer risk or resilience for mental health outcomes through their influence on brain development and function, mediated by genomic and neural mechanisms, over the entire life course. However, the impact of social and economic factors such as poverty, trauma, abuse, neurotoxins, life stress, education or parenting, will vary at different stages of the life course and is greatest during the developmentally sensitive phases of early life and adolescence. Furthermore, these factors do not only exert influence in a top-down direction; individuals may shape their own environments and experiences in ways that matter for mental health outcomes, and differences in social experience may be partly driven by genetic factors that contribute to individual differences in cognitive, social and behavioural capabilities.¹⁰⁹

Thus, a convergent approach seeks to build a full account of evidence emerging from the diverse disciplinary traditions which have studied the aetiology of mental health problems. This will require the same attention to what one might call socio-economic phenotypes (or “exophenotypes”)¹¹⁰ as is paid to the clinical phenotypes at more proximal levels of explanation. Specification of concepts such as ‘childhood deprivation’ or ‘stress’ into operational variables is likely to require empirical research that interrogates and explains the mechanisms by which social and economic factors influence the mental health of individuals. The real promise of the convergent approach is that it leverages, and dynamically integrates, multiple levels of explanation simultaneously to build complex models that guide prevention and intervention over the life course; this approach is also responsive to critiques about biological reductionism.¹¹¹ There are many examples of how the convergent approach could be applied across the life course, in particular in early childhood, adolescence and older age (Panel 56).

[Panel 56 here. Convergence in understanding mental health across the life course]

The Human Rights Framework

Historically, the importance of a human rights approach to health gained momentum after the Nuremberg trials, which highlighted the atrocities which are possible in the absence of a human rights framework. The Nuremberg trials are also relevant because they prosecuted doctors responsible for the Aktion T4 plan, according to which the first group of persons eliminated by the Nazis were psychiatric patients (including children), and the gas chambers were first developed for murdering the mentally ill, before being used against Jews. There are two main ways in which human rights need to be considered with respect to mental health. First, mental health as a human right itself, as an inalienable component of health. Secondly, people living in vulnerable situations (including those with mental disorders) are more likely to have their rights ignored or abused.

Mental Health as a Universal Human Right

The right to health is a fundamental human right and essential in our understanding of living a life with dignity. It is an inclusive right that extends to all aspects of daily living. Although historically the right to mental health has not been clearly conceptualised, several recent policy instruments are starting to change this including the United Nations (UN) Human Rights Council Resolution 6/29 of 2007 which speaks of the right of every person to the enjoyment of the highest attainable standard of physical and mental health; the WHO Mental Health Action Plan 2013-2020 which has human rights as one of the cross-cutting principles;²⁷ the 2017 report of the UN Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health;¹¹² and the UN Convention on the Rights of Persons with Disability (CRPD, discussed later). Additionally, there are also strong links between mental health and the realisation of social, economic and cultural rights. The belief that mental health is a fundamental human right implies that the very circumstances that undermine mental health should be challenged.¹¹² This includes inequalities in income, living conditions, safety and food security which are in danger of being

accepted as inevitable or normal. In short, all people have the right to enjoy the shared conditions that allow for the attainment of mental health, including access to quality mental healthcare.

From an equity perspective, the acceptance of mental health as a fundamental human right also draws attention to the needs of specific vulnerable populations who are at greater risk to experience mental health problems. These include persons affected by violence, conflict and forced migration; children and youth in vulnerable circumstances; the very poor; sexual and gender minority groups; indigenous peoples; prisoners; and people with disabilities. Vulnerable groups tend to experience exclusion, prejudice, isolation and denial or lack of access to fundamental rights and services. A plethora of international human rights instruments undergird the rights of vulnerable populations (Table S1: International Human Rights instruments relevant for Global Mental Health).

Under extreme circumstances such as war, natural disasters, and severe resource-constraints, vulnerabilities tend to converge and be compounded in already marginalised populations. The lack of power that children and youth have over their life decisions makes them particularly vulnerable, and initiatives to empower children's voices, recognising their right to self-determination, can challenge this status quo. The United Nations Convention on the Rights of the Child ratified by all countries of the world (except the United States of America), includes several articles directly addressing the Right of the Child to mental health. Children with disabilities often face marginalisation and discrimination and the impact on the child is further compounded by poverty, social isolation, humanitarian emergencies, lack of services and support, and a hostile and inaccessible environment.¹¹³ In a similar manner, the situation of women with disabilities is commonly compounded by the denial of multiple rights.¹¹⁴ These vulnerabilities are also amplified among older people with other vulnerabilities, such as women with disabilities, people belonging to minority or rural communities, living on the streets and refugees.

Populations affected by humanitarian crises constitute a large vulnerable group whose human rights and mental health are frequently compromised. A recent report from Syria provides a stark example, documenting the impact of the prolonged exposure of children to bombings, conflict and malnutrition on mental health.¹¹⁵ There are estimates of over 200 million displaced persons globally, and similar examples of the resulting violations of the right to mental health can be seen in many other countries, such as in Yemen, the Democratic Republic of Congo and Myanmar.

Persons with mental disorders and psychosocial disabilities

The Convention on the Rights of Persons with Disabilities (CRPD)¹¹⁶ was adopted in 2007, and was quickly signed and ratified by most countries in the world, coming into force in 2008. The Convention promotes, protects and ensures the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and promotes respect for their inherent dignity. People with psychosocial disabilities (the term used in the Convention to refer to mental disorders) participated in the negotiations and have been active in promoting its realization. The ratification of CRPD by countries emphasizes their human rights obligations including support for social inclusion and the removal of "attitudinal and environmental barriers that hinders full and effective participation in society on an equal basis [with others]". Many countries have revised their legislations on mental health to make them compliant to CRPD. In the absence of a specific statute on mental health or disability in a country, the CRPD can be invoked and rights holders have access to this mechanism for any country where it is ratified.

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Despite the development of these international legal instruments, persons with psychosocial and intellectual disabilities are among the most vulnerable globally, experience many forms of marginalisation, and are often left behind when it comes to attaining their human rights and equal access to services and life opportunities.¹¹⁷ Across the globe, people living with mental disorders have often been hidden, tortured, abandoned or left to die. In many countries, lack of access to health services, housing and employment, and sometimes extreme violation of basic rights, are common.¹¹⁸ In 2012, Human Rights Watch reported the forceful detention of persons with mental disorders in prayer camps, and conditions of chaining and denial of mental health services or medication as the most pressing concerns.¹¹⁹ These violations occur across the life course, with

particularly vulnerable groups including children and adolescents with neurodevelopmental disorders (including intellectual disabilities), and older adults with dementia.¹²⁰

Such violations of human rights occur most frequently at the nexus of poverty, social marginalisation and lack of access to mental health care. Consequently, the Pan African Network of Persons with Psychosocial Disabilities' Cape Town Declaration illuminates the role of poverty and dignity in their empowerment strategies.¹²¹ With a few exceptions, programmes aimed at disability inclusion, poverty alleviation and other development priorities have frequently excluded psychosocial and intellectual disability.¹²² In contravention of Article 25 of the UN Convention on the Rights of Persons with Disability (CRPD) which states that health services must be "as close as possible to people's own communities, including in rural areas", many low and middle-income countries (LMIC) continue to concentrate their mental health services on inpatient psychiatric hospitals, which are relatively inaccessible ~~and where custodial and inhumane care is frequently evident.~~²⁵ The WHO QualityRights toolkit, itself based on CRPD, uses parity with general health services as a benchmark for the quality of care that people should expect to receive.²⁶ ~~However,~~

In addition to the specific violations of human rights experienced by people with severe psychosocial disabilities, people living with mental disorders are frequently denied fundamental human rights, including the right to freedom, the right to opportunities for education and employment, the right to citizenship, and the right to health care on par with physical health problems. The latter is one of the major reasons for premature mortality amongst persons with mental disorders.¹²³ In addition to the scarcity of service resources, stigma and discrimination are also a fundamental barrier to social inclusion. Such public acceptance of often blatant abuse and neglect, within and outside of the health care system, would not be acceptable if it were related to any group other than people living with mental disorders.

Recently, attention has focused on Article 12 (Equal recognition before the law) and Article 14 (Liberty and security of the person), with the UN's CRPD Committee's 'General Comments' prohibiting the status quo, where others, usually professionals and legal representatives, make decisions on behalf of people temporarily unable to represent themselves in their 'best interest' (i.e. 'substitute decision-making' or guardianship). The Convention states that all people have inherent legal capacity and should always be at the centre of decisions about their own welfare. Even if on occasion they need support ('supported decision-making'), states should always be most guided by the person's 'will and preference'.⁴⁷ Commentators have referred to guardianship as "civil death" subject to widespread abuse.¹²⁴ They have called for states to develop supported decision-making mechanisms compatible with their settings, to allow individuals to exercise their right to decide and make choices about their lives.¹²⁵ Critics of this view suggest that the absolute commitment to the person's 'will and preference' may inadvertently undermine the right to health, freedom and justice and thereby leading to a backlash including a rise in stigma and discrimination.¹²⁵ In addition, some critics have argued that the CRPD's general comments assume a highly individualistic culture, which is frequently not appropriate in more collectivistic cultures in LMIC, where the role of the family is given more prominence in decision-making. These debates, on how individuals with psychosocial abilities exercise autonomy and agency over matters about them, serve to remind us ~~that~~ of work that is still needed to ensure that justice and full, effective and equal participation is achieved. There is an urgent need for greater dialogue between advocates of the CRPD and people working on the ground in LMIC, to articulate systems of review based on evidence-based principles of competency. These could include monitoring guardianship abuses, dedicated and informed representation or counsel, alternative guardian programs, and a robust role of regional and national human rights.¹²⁵

There are similar concerns for people with psychosocial disabilities who are involved in the criminal justice system. A key challenge is balancing individual rights and community safety because of the imprecise means for determining and managing risks. Whatever is the most appropriate approach for the relatively rare instances where the human rights of the individual and the rights of the community collide, there is consensus that the Convention is a powerful tool, requiring Governments to demonstrate recognition of equal rights. There is a need now for the full range of stakeholders to focus on the practical steps required to implement these CRPD principles in the full

range of settings where people with mental disorder receive care.¹²⁶ Alignment of law and practice in other areas, for example Article 19 (Living independently and being included in the community), or Article 30 (Participation in cultural life) would go a long way to challenging assumptions that having a mental disorder reduces a person's value before the law and, in a very practical way, improving quality of life of people with psychosocial and intellectual disabilities. The role of civil society and voices of persons with mental disorders is critically important in attaining these fundamental rights (Panel S3: Mental Health Society of Ghana-MEHSOG).

SECTION 3: INTERVENTIONS FOR MENTAL HEALTH

This section of the Commission report addresses the interventions, based on the best available evidence, which we consider necessary to prevent mental and substance use disorders, and to provide treatment and care to enhance recovery. We present these interventions according to stages of the life course, particularly stressing aspects that we find innovative, with the potential for scaling up, and which may be delivered either through routine health or other platforms.¹²⁷ We use case studies to illustrate the implementation of these interventions in the real-world, Panels S3 to S24). Our aim in this section is not to summarise all evidence-based interventions (for this see other sources and our recommendations for future research in section 4),^{128,127} but rather to convey a sense of what a re-framed mental health system could look like in the future.

Case studies in global mental health delivery

Panel S3: Mental Health Society of Ghana-MEHSOG

Panel S4: Scaling up lay health worker delivered psychological therapy for common mental disorders

Panel S5: Reducing the treatment gap for depression through increasing the demand for mental health care in rural India

Panel S6: Thinking Healthy Programme: a community health worker delivered psychosocial intervention for improving maternal wellbeing

Panel S7: Improving Access to Psychological Therapies

Panel S8: Time to Change programme to reduce stigma and discrimination in England

Panel S9: Increasing the detection of mental disorders in the community

Panel S10: Parenting interventions for families of children with emotional and behavioural disorders

Panel S11: HealthWise: building socio-emotional skills in adolescents

Panel S12: The Going Off, Growing Strong resilience and suicide prevention programme in indigenous Canadians

Panel S13: Expanding youth mental health care in New Zealand

Panel S14: HEADSPACE: Scaling up stigma-free enhanced primary care for young people across Australia

- Panel S15: TEAMcare: a collaborative model for depression and co-morbid disorders
- Panel S16: Universal mental health coverage in Peru
- Panel S17: Integrated HIV care for people with mental disorders in Rwanda
- Panel S18: Clubhouse: Improving mental health through community building
- Panel S19: IMPACT - Improving access to care for late-life depression
- Panel S20: The Kintun program for families with dementia
- Panel S21: A collection of inter-agency resources for mental health and psychosocial support in humanitarian settings
- Panel S22: Building a primary mental health care system in post-disaster Aceh
- Panel S23: Improving quality of care in mental hospitals using a human rights approach
- Panel S24: The Banyan: alternative housing for homeless women with mental disorders

We shall first consider four innovative strategies that seek to address supply and demand-side barriers to achieving mental health objectives, namely: (i) improving access to psychosocial interventions; (ii) the use of digital technologies; (iii) the balanced care approach to delivering mental health services; and (iv) interventions to increase the demand for care. We then turn to the application of these innovations across key developmental stages of the life course. Our focus moves finally to interventions for particularly vulnerable groups, in light of the SDG vision of 'Leave no-one behind'. Despite the many challenges outlined earlier in the Commission, we deliberately strike a positive note in our vision of how mental health can be reframed in the future. Indeed, mental health services in many countries have pioneered elements of modern health care faster and more widely than have services for treating people with physical health conditions (Panel 67: Aspects of mental health care which are pioneering across the whole of health care).

[Panel 76 here: Aspects of mental health care which are pioneering across the whole of health care]

Innovative strategies

Improving the availability of psychosocial interventions

The primary goal of psychosocial interventions, including both the so-called 'talking therapies' as well as social interventions, is to facilitate the acquisition of skills to address the risk factors, mediators or consequences of mental health conditions and to facilitate the enabling social circumstances for their recovery. They are supported by strong evidence of their effectiveness across a wide spectrum of conditions, and for a range of goals, from prevention through to the treatment of acute phases of illness and to rehabilitation and recovery.¹²⁹

The effect sizes for psychological treatments typically range from moderate to large and side-effects are relatively rare. The strength of evidence for psychological therapies is at least as strong as for other treatment modalities. Furthermore, when head to head comparisons of efficacy have been conducted between pharmacological and psychological therapies, notably for mood, anxiety and trauma-related disorders, there is no consistent evidence for the superiority of either in terms of attaining remission, and psychological therapies appear to have a greater enduring effect.¹³⁰ Most of these interventions are grounded in a robust orientation of cognitive, behavioural and interpersonal theories, and there is now a growing neuroscience evidence base indicating their

mechanisms of action. Regarding social interventions, there is now growing evidence for the effectiveness of specific, manualised programmes, such as individual placement and support (supported employment) to help people with severe mental illness to find and keep jobs.¹³¹

When offered a choice, most people living with mental disorders prefer psychosocial therapies over pharmacological options. A considered balance therefore needs to be struck between pharmacological and/or psychological treatments, with patients being offered a choice where feasible. Furthermore, they can often be used concurrently in a way that can reinforce their individual effects. Despite this evidence, access to these therapies remains very low in most populations, especially because there are very few skilled practitioners of psychosocial therapies in most countries, as well as low rates of awareness of their availability. Further, there are concerns about the acceptability and feasibility of these therapies in the real-world contexts in which they need to be ultimately delivered at scale, when most have been developed in restricted clinical samples in specialist settings of high-income countries.¹³⁰

In recent years a large body of evidence has accumulated highlighting several consistent strategies to overcome these barriers. The concept of task sharing (previously described as task shifting) refers to the transfer of some (mental) health care responsibilities from more-specialised to less-specialized staff. A series of systematic reviews have demonstrated the effectiveness of the delivery of psychosocial therapies in low resource settings for common mental disorders (including trauma related disorders) in adults,⁷⁶ child mental disorders,¹³² schizophrenia¹³³ and for a range of mental disorders in high-income countries.¹³⁴ (Panel S4: Scaling up lay health worker delivered psychological therapy for common mental disorders) (Panel S5: Reducing the treatment gap for depression through increasing the demand for mental health care in rural India). (Panel S6: Thinking Healthy Programme: a community health worker delivered psychosocial intervention for improving maternal wellbeing) Recent studies also support interventions aimed at the prevention of mental disorders, such as targeting early child development to promote social and emotional competencies in young people.¹³⁵ In at least one country (Panel S7: Improving Access to Psychological Therapies), the exponential expansion of the range of providers with specific training in these therapies has somewhat reduced the treatment gap for common mental disorders.

The sum of this substantial evidence base points to a fundamental rethinking of psychosocial therapies in four respects. First, the content of therapies needs significant modification to incorporate local metaphors and beliefs, and to combine psychological skills building components with social work components. It is also vital to adapt the tasks to ensure acceptability for people with limited literacy (for example completing homework in sessions). Second, the delivery agent is most often a community health worker or lay counsellor who belongs to the same community as the beneficiary population with basic training to achieve competency to deliver the treatment, followed by a structured supervision protocol to assure quality. Third, the setting for the delivery is typically in the community or in primary health care. Fourth, the treatment is delivered over a relatively brief time period (e.g. between 6 to 10 sessions for common mental disorders in adults), to enhance acceptability and feasibility. The non-specialist health care provider ideally should work within a collaborative care framework with access to a specialist provider, who can be remotely located, and who participates in training, oversees quality, and who provides guidance or referral options for complex clinical presentations.

A number of newer innovations indicate strategies that can enable the dissemination of psychosocial therapies. First, a major bottleneck to task-sharing is the reliance on traditional face to face methods for training and on experts for supervision. Both these barriers are now being addressed through on-line training, and the use of peers to supervise therapy quality using structured scales with feedback.⁷⁶ Second, effective treatment packages typically comprise a number of similar 'elements' spanning behavioural, interpersonal, cognitive and emotional domains.⁷⁶ This is consistent with a recent demonstration, involving 832 treatments tested in 437 randomized clinical trials for child and adolescent mental disorders, in which a parsimonious set of 18 practice elements from these treatments were found to map onto the needs of 63% of children with mental health conditions in a community clinic setting.¹³⁶ These observations have led to the

development of ‘trans-diagnostic’ psychological therapies that aim to target multiple disorders either through a common approach for all, or through matching of specific treatment elements for specific syndromes (for example, behavioural activation for depression).¹³⁷ There is a growing body of evidence in support of these approaches, in particular for young people,¹³⁸ and an emerging evidence base for lay counsellor delivered interventions in low resource settings.¹³⁷ The third approach to scale up psychosocial therapies is their dissemination directly to the beneficiaries, in particular for secondary prevention (i.e. intervention in the early or sub-syndromal stages of a disorder). This is potentially the most disruptive innovation of all as it removes the health professional entirely. Apart from the burgeoning industry of apps and websites offering self-delivered psychological therapies, there is also evidence in support of guidance from printed manuals, of relevance to populations with limited internet coverage, or constrained by low literacy levels or language barriers.

The scaling up of psychosocial therapies to enhance population coverage efficiently will rely on a stepped care approach in which the first step comprises self-delivered interventions for mild to moderate conditions. The second step for individuals with more severe conditions could take the form of psychosocial therapy delivered in routine care settings or homes by community health workers or lay counsellors. The next step, which may be accessed immediately for persons with very severe presentations, such as acute psychoses or serious suicide attempts, may take the form of a specialist or physician consultation and intervention options may expand to include medications, more complex psychotherapies or other physical therapies. This stepped approach is, of course, based on the staged model of mental disorders described earlier.

Use of digital technologies for mental health

The rapid growth in mobile telecommunications and internet access affords new opportunities to reach a larger number of individuals living with mental disorders and to bridge the mental health treatment gap. A recent review of 49 studies of digital technology interventions from over 20 low-income and middle-income countries as well as literature on their use in HIC reveals five distinct roles of these technologies.¹³⁹

Digital technology can help with education of the public and disseminating information about common mental disorders through anti-stigma campaigns,¹⁴⁰ substance-use prevention messaging, or efforts to promote awareness using SMS text messages or social media. Online communities represent an opportunity to promote mental wellbeing and enable individuals with mental health conditions to feel less alone and to find support from others with shared experiences. Family members can also access important resources such as social support, recommended coping strategies, and self-help programs delivered online or through mobile phone platforms, as shown, for example, in Pakistan,¹⁴¹ Australia (<https://moodgym.com.au/register.info>), the UK (see Living Life <http://www.lltf.com/index.php>; and in the USA “7 cups” - <https://www.7cups.com/>), and the Depression and Bipolar Support Alliance (<http://www.dbsalliance.org/site/PgerServer?pagename=peer>).

Secondly, digital tools can facilitate screening and diagnosis of mental disorders.¹³⁹ Web-based screening tools delivered on mobile devices, SMS text messaging, or smartphone applications have been used to enable community health workers to identify common mental disorders. With the increasing popularity of online platforms and rapidly developing big data analytic techniques, there may be new opportunities to examine patterns of online interaction to enable early identification of individuals at risk of depression, psychosis, suicide, or substance use.

Thirdly, technology can support the treatment and care of people with mental disorders and the key processes and outcomes of providing effective care. Such technology applications include mobile and online programmes for illness self-management and relapse prevention, SMS text messaging

for promoting medication and treatment adherence, and smartphone applications for tracking and monitoring symptoms.¹³⁹ There may also be opportunities to track high-risk situations using wearable sensors or smartphone-based location, time, or activity data and to send real-time alerts to patients or designated caregivers. Social media which offers peer-to-peer networking combined with individually tailored therapeutic interventions and expert and peer-moderation are engaging and positively impact social functioning.¹⁴² Tele-psychiatry applications such as online videoconferencing can allow patients to connect with mental health providers for clinical consultations for diagnosis, follow-up care, or long-term support.¹³⁹ Websites and mobile applications can also be used to deliver evidence-based treatments to reduce alcohol consumption or cognitive-behavioural therapies, making it possible to reach individuals with little access to specialty care or who may be reluctant to seek services due to stigma, long travel distances, or out-of-pocket expenses. The most innovative digital therapies use the digital platform in ways that are unique to this medium, for example using gaming interfaces to assess 'deep phenotypes' of mental health and tailor interventions to promote adaptive or ameliorate maladaptive cognitive processes. While these are still at an experimental stage of design and evaluation, they provide another example of how clinical disciplines, cognitive neuroscience and digital technologies can converge to build a radically new vision for therapies for mental disorders (see Section 2).

Fourthly, digital technology can support effective training and supervision of non-specialist health workers, through digital learning and supervision platforms, by providing critical decision support tools, or access to specialist consultation and support. In this way digital applications can extend the capacity and reach of the limited number of mental health specialists by facilitating off-site supervision and mentoring of local health and lay providers. Such support can build provider capacity and reduce burnout and turnover among frontline health workers.

Finally, technology can also support health care system-level efforts to improve mental health. For example, digital mental health information systems can help track service users and mental health outcomes of defined populations and to make sure that patients do not fall through the cracks.¹⁴³ Tools such as mobile or web-based registries can facilitate care coordination and prompt targeted notifications to the care team or family caregivers. Such technologies could also afford opportunities to identify crisis situations and facilitate rapid response. Digital technology can support health care systems through 'big data' analysis to facilitate system monitoring, planning, and quality improvement as well as targeting specific interventions to patients, a concept increasingly referred to as precision medicine. Another example is the use of geo-informatics to map communities or neighbourhoods at increased risk for mental health and substance use problems such as areas with higher levels of crime or violence. These approaches could improve our understanding of social determinants of mental health at the population level, and inform and evaluate prevention efforts.

Potential risks and harms associated with the use of digital technologies must also be recognized. Technology-based approaches may improve the reach of mental health services but may lose key 'human' ingredients and possibly, effectiveness of mental health care. The use of social media has been shown to be associated with potential risks for mental health such as 'cyberbullying' and the addition of "internet gaming disorders" in the latest iteration of the DSM as a condition for further study is an indication of the mental health consequences of excessive use of these media. It is important but challenging to make sure that information available through mobile or online platforms is safe, reliable and trustworthy. Digital technology creates important ethical risks related to privacy, confidentiality, potential for intrusion and coercion, and circumstances where governments or authorities could further discriminate against persons with mental disorders through tracking and monitoring, for example in access to insurance. Technology interventions could also have the unintended consequence of widening inequalities in mental health care between those who have access to mobile devices or the Internet and those who do not. Although there is a need for policies to guide their safe and effective application, at present such

technologies and their applications in health care are unregulated in most countries and research on their consequences on mental health is in its infancy.

A balanced care model for mental disorders

An evidence-based flexible approach to planning treatment and care for mental disorders is the 'balanced care model' which has been elaborated for adults, but which can be generalized across the life course.¹⁴⁴ This model describes mental health service components relevant for low, middle or high income countries (see Figure 8), and emphasizes the need for a balance between community-based support, integration in routine care, and specialist services, customised to each resource setting. This model has now been adapted for this Commission to reflect resource contexts, rather than countries, recognising the large inequalities which occur within countries.

[Figure 8 here: Mental health service components relevant to low, medium and high resource settings]

The balanced care model describes five service components that together comprise specialist services for more severe and enduring conditions. First, *out-patient/ambulatory clinics*, which are the basic building block for care provision in many countries. Second, *community mental health teams (CMHTs)* comprising a range of multi-disciplinary providers and use a case management system for a locally defined geographical catchment area. Third, *acute in-patient care*, to provide short-term care for people in the most severe crises.¹⁴⁵ Fourth, *long-term community-based residential care* rather than long-stay psychiatric beds for those individuals in need of such care. Fifth, *work, educational and occupation support* to mitigate the social consequences of severe mental health conditions.

In the least resourced settings, the most pressing challenge is to increase the coverage of evidence-based interventions through the provision of care through non-specialist providers who are most widely available on the ground. The focus is therefore upon increasing the capability of primary and community health care staff, and providers in other relevant platforms such as schools and the criminal justice system, to acquire and practice the skills needed to identify and treat people with mental disorders. For children and youth, better integration of mental health care is needed across a range of service platforms which address their concerns, notably education, primary and child health care and social care. At the next resource level, this primary care system needs to be strengthened with the addition of dedicated mental health providers or managers to pro-actively detect and treat people with common mental disorders. At the highest resource level, the balanced care model proposes that for each of these five components, sub-specialist options are developed, for example early intervention teams for people in the first episode of psychosis¹⁴⁶ or specialised teams for children with autism.

Interventions to increase help seeking and demand for care

The low demand for mental health interventions (including follow-up and adherence with care) is the consequence of a range of barriers. Beyond the lack of supply of reliable, quality services, other notable barriers include the stigma attached to mental disorder¹⁴⁷ and the differing explanatory models for mental health experiences in diverse populations. There is emerging evidence that for several mental disorders, only about a half of people living with these disorders wish to seek help. Recent global studies conducted by the World Mental Health Survey consortium, for example, have shown that among people with anxiety, depressive or substance user disorders, for example, only 41%, 57% and 39% respectively^{37,148,149} report that they have a mental health difficulty. Evidence is emerging on how to address these barriers including through inter-personal contact with persons with mental disorders, the engagement of people with mental disorders in all aspects of mental health care, and the use of multi-modal community interventions which incorporate contextual understandings and narratives of mental health and disorder to increase the detection of mental disorders, demand and help seeking for mental health care¹⁵⁰⁻¹⁵² (Panel S9)

Interventions based upon the core principle of inter-personal contact are the strongest evidence-based method for reducing stigma and discrimination, and so promoting the human rights of people with mental ill health. This means creating opportunities for either direct or virtual contact with people with the experience of mental disorders.¹⁴⁰ Such interventions can be targeted to specific groups in the community, for example for health care staff. For young people, inter-personal contact is most effective when carried out in educational settings.¹⁴⁰ Such anti-stigma campaigns have been taken to scale in some high-income countries (Panel S8: The Time to Change programme to reduce stigma and discrimination in England). There is emerging evidence that culturally adapted inter-personal contact interventions can also be effective in reducing stigma in LMIC.¹⁵³ Such measures to reduce stigma must be seen as a core component of a much broader strategy which emphasizes freedom from discrimination, the active promotion of human rights, and no restrictions to social inclusion and participation.

In recent decades there has been a steady rise in the demand for meaningful participation by patients and family members in all aspects of shaping mental health policies, and in planning, delivering, quality assuring and evaluating services. This is a practical manifestation of the slogan 'Nothing about us without us'. Three main types of patient involvement have been described: consultation, collaboration and patient-controlled initiatives. Specific consumer-led interventions include crisis plans, advance statements and advance directives. These are methods to formalise the priorities and preferences of patients in formulating care plans. They have been shown to be effective under certain circumstances in reducing compulsory admission to psychiatric hospital.¹⁵⁴ Decision aid tools are structured approaches to support decision making by patients (in consultation with staff) for example in choosing between treatment options, or whether to disclose having a history of mental illness.¹⁵⁵ An overarching theme connecting all these elements is the concept of recovery (Section 2).

In many communities the widely varying explanatory models of mental health and disorder (for example that they are equivalent to social suffering or are the result of moral weakness or spiritual / religious misfortune) lead to low levels of self-recognition or detection by health workers. Innovative strategies for educating health workers and communities which integrate biomedical and contextually appropriate understandings and messages have been shown to improve detection of common mental disorders and enhance demand for health care (Panel S9: Increasing the detection of mental disorders in the community) and S5: Reducing the treatment gap for depression through increasing the demand for mental health care in rural India).

Application of interventions across the life course

The reframed mental health system that we envision for the future encompasses interventions related to prevention, and to treatment related to mental health, and applies at key developmental stages across the life course (see Section 2). This vision also emphasises that, a focus on the distributional equity of resources is needed to avoid resources being delivered largely to well-resourced populations (for e.g. urban), and to use interventions purposefully to redress social disparities and disadvantage. While we have presented interventions for each of the key stages of the life course, we emphasize that a 'joined up' package of effective interventions for prevention and treatment through the life course can have significant population level benefits on the burden of depression (Panel 78) and represents excellent value given the burden and impact of mental health problems.

[Panel 78 here: Realising the gains of scale-up - the case of depression]

The early life course

There are several compelling arguments for prioritising child and youth mental health. (i) Acting early in the life course is the key to preventing mental health problems later in life as the majority of mental disorders in adult life have their onset in childhood. (ii) The combined mental and substance

use disorders among children and youth are the 6th leading cause of DALYs, accounting for 5.7% of total disease burden in this age group, as well as the leading cause of disability in terms of YLDs, equivalent to a quarter of disability in youth aged 10-24 years worldwide (26.6%).¹⁵⁶ (iii) Neurological changes during the 'sensitive periods' of childhood and adolescence present itself with major opportunities for positively impacting the developing brain. (iv) Childhood neglect, maltreatment and deprivation are strong risk factors for future mental and physical health problems (Figure 9).¹⁵⁷ (v) Globally, there is an enormous lack of child and youth mental health services, and very low levels of financing for these services.⁴⁰ Young people have the lowest rates of access due to under-detection, poor awareness and help-seeking and insufficient priority in policy frameworks.¹⁵⁸

[Figure 9 here: Protective and risk factors at different stages of the early life course]

Acting early is therefore likely to be the most promising investment in population mental health, for the following reasons. First, early recognition of mental health problems or risk factors from birth and parental mental illness, to adulthood is compatible with a clinical staging approach, which emphasizes early stages of mental illness, contributing to a strong preventive focus (Section 2). Second, early recognition can contribute to tackling stigma associated with mental health and promote timely help-seeking, with better prospects of favourable outcomes. Third, special attention to early interventions in high-risk groups, such as children affected by violence, abuse, maltreatment or poverty can contribute to reduction in disparities in mental health. Fourth, investing in child and youth mental health is not only an economic requirement, but also a moral imperative. More funding for child and youth mental health care can positively impact future unemployment, reduce use of welfare benefits and contact with criminal justice.⁴⁰

The perinatal period and childhood

Investment in young children's development has positive long-term outcomes, improving health, human capital, and wellbeing across the life course.¹⁵⁹ Given the brain's plasticity, the perinatal period and early childhood are critical periods for healthy development and later mental health.

Prevention: Genetic counselling, screening of new-born babies for modifiable risk factors, and reducing maternal alcohol use can prevent intellectual disability. Preventative interventions focussing on maternal mental health, mother-infant interaction, play and stimulation have positive long-term benefits for both infants and mothers.¹⁶⁰ Interventions that promote early initiation of breastfeeding, close physical contact with the mother (e.g. Kangaroo Mother Care) and enhance maternal responsiveness contribute to secure attachment, and have been associated with an increase in bonding indicators such as infant-mother attachment at 3 months and infant growth.¹⁶⁰ Such programs focusing on the early interaction between new-borns and their caregivers, and particularly improving sensitive responsiveness, have also been shown to reduce the risk of child maltreatment;¹⁶¹ additionally, parent education and multi-component interventions (which typically combine family support, preschool education, parenting skills and child care) also show promising effectiveness in preventing child maltreatment and reducing mental health problems in children exposed to adversities and for children affected by armed conflict.¹⁶²

A meta-analysis of 193 studies found that maternal depression was significantly related to increased levels of internalizing (e.g. anxiety disorders) and externalizing (e.g. ADHD, conduct disorder) mental disorders among their children.¹⁶³ (Panel S6) There is also clear evidence for the correlation between parents' PTSD symptom severity and children's psychological distress. There is strong evidence for the effectiveness of interventions for maternal mental disorders in reducing internalising and externalising problems, as well as preventing the onset of childhood mental disorders.¹⁶⁴ Screening for women at risk of antenatal and postnatal depression and providing effective interventions to promote recovery are therefore important preventive interventions for the new generation of children.¹³⁵ Home visiting programs for new mothers and their babies integrate the detection and treatment of maternal depression, including the delivery of psychosocial interventions, within routine pre- and postnatal-care services.¹³⁵

Parenting and child welfare interventions are key investments for breaking toxic cycles of trans-generational transmission of violence, poverty and mental illness. For example, a psychosocial stimulation and parenting support intervention among growth-stunted toddlers led to substantial gains in adult functioning and labour market outcomes later in life.¹⁶⁵ Within schools, life-skills training focusing on the development of social, emotional, problem solving and coping skills is considered best practice for building emotional and social competencies in younger as well as older children (see below).¹⁶⁶

Treatment, care and rehabilitation: Within low resource settings, a basic package of interventions for children and young people may include parenting skills training programmes ~~that~~ which are effective for children with developmental, behavioural and emotional problems¹⁶⁷ (Panel S10: Parenting interventions for families of children with emotional and behavioural disorders); (Panel S11: HealthWise: building socio-emotional skills in adolescents). Children with developmental disorders, and their families, are best supported by community-based, family-focused rehabilitation programmes. The Community-Based Rehabilitation (CBR) model is a rights-based approach, building on the inherent strengths of the community, and involving people with disabilities, family members and volunteers. It should be supported by local health professionals to facilitate inclusion in mainstream services where possible, tailored to local specific needs and resources. The evidence on CBR programmes is mostly supportive of its acceptability and beneficial impact.¹⁶⁸ The effectiveness of low-intensity parenting interventions for children with developmental disorders (such as the WHO Caregiver Skills Training Package) for delivery by task-sharing in low resourced settings is currently being assessed. Children with Developmental Disorders such as autism can benefit from more specific parent-focussed interventions (effective even when delivered by non-specialists in LMICs).¹⁶⁹ Within higher resource settings, as resources allow, psychosocial interventions with robust evidence for their effectiveness for specific conditions include cognitive behavioural therapy (CBT) and family psychotherapy for anxiety disorder, conduct disorders and ADHD).¹²⁷ Although stimulant medications are effective treatments for children with ADHD, challenges in obtaining diagnostic assessments, and the risk of stimulant misuse in the absence of adequate regulation limits the feasibility of its widespread use outside high resource settings.¹⁶⁷ Further, child training interventions have been shown to benefit school-aged children in reducing behavioural problems.¹⁶⁴

Adolescence and youth

Later childhood and adolescence present further opportunities for ameliorating the effects of early disadvantage, building resilience and reducing the harmful consequences of conditions that have an onset in this period.¹⁷⁰

Prevention: Inequities, in particular those linked to poverty and gender, shape all aspects of adolescent health and wellbeing, calling for strong multi-sectoral actions to address these social determinants and offer second chances to the most disadvantaged.¹⁷⁰ Family, parents, peers, school and community can provide the critical protective inner circle. Universal socio-emotional learning (SEL) interventions in communities and schools promote children's social and emotional functioning, improve academic performance, and reduce risk behaviours, including smoking and teenage pregnancy.¹⁷¹ SEL interventions can be delivered by peers, teachers and counsellors through integrating SEL into youth programmes or school curricula (See Panel S11: HealthWise program in South Africa) School-based programmes require Teacher training, support, supervision and attention to the school environment, suggesting that integration into a whole school approach is preferred. Indeed, the most effective interventions employ a whole-school approach where SEL is supported by a school ethos and a physical and social environment that is health enabling, involving staff, students, parents, and the local community. Such interventions act both directly in promoting self-efficacy and trust, as well as through reducing risk factors such as bullying.¹⁷² Economic analyses indicate that SEL interventions in schools are cost-effective, resulting in savings from better health outcomes, as well as reduced expenditures in the criminal justice system.¹⁷³

Effective prevention programs for reducing drug and alcohol use among adolescents are comprehensive approaches that included anti-drug information, training in refusal skills, self-management, and social skills. Suicidality among adolescents is a major public health concern, as it presents the second highest cause of death among youth globally.¹⁷⁴ Multi-modal programs including community and school-based skills training for students, screening for at-risk youths, education of primary care physicians, media education, and lethal-means restriction offer the most promising prevention strategies (Panel S12: The Going Off, Growing Strong resilience and suicide prevention programme in indigenous Canadians). Targeted or indicated preventative interventions focus on youth who have had experiences that elevate their vulnerability to mental disorders or who show sub-threshold symptoms. Interventions which promote coping and resilience, including cognitive skills training, have been found to help to prevent the onset of anxiety, depression, and suicide.

Treatment, care and rehabilitation: Mental disorders are the leading contributors to the burden of disease in adolescents, and youth-friendly approaches, are needed to address the barriers to access which are unique in this developmental group.¹⁷⁵ A comprehensive approach (Panel S13: Expanding youth mental health care in New Zealand) should involve the active engagement of young people in the design and delivery of services, offer of a choice of low and high intensity interventions including guided self-care delivered digitally and face to face interventions delivered in primary care or stand-alone youth friendly centres which offer a one-stop service for a range of social and health concerns including for mental disorders and substance use disorders. Psychological therapies based on cognitive and behavioural elements are effective for anxiety and depression, and there is evidence to support the limited use of antidepressants for depression.¹⁶⁷ Screening combined with brief interventions based on motivational interviewing, cognitive-behavioural elements or family support have the most consistent evidence for treatment of substance use problems.¹⁷⁶ Treatment strategies may include replacing substance use with constructive and rewarding activities, improving problem-solving skills, facilitating better interpersonal relationships, including through strengthening family relationships, encouraging young people to accept and stay in care, treating other co-occurring mental disorders, and addressing violence and child abuse. To improve access, quality and continuity of youth mental health care, further development and investment in systems of care are much needed. An example is the multidisciplinary and scaled-up 'Headspace' program in Australia (Panel S14: HEADSPACE: Scaling up stigma-free enhanced primary care for young people across Australia), which provides youth-friendly stepped care within a clinical staging framework.¹⁵⁸ There is a rapidly expanding literature on interventions at the prodromal stage of psychosis, using a staged care model⁶⁷ and research is underway to tailor interventions for each specific stage which may ultimately lead to personalised care for psychosis and other mental disorders.⁶⁷

The later life course

While most mental disorders have their origins in the earlier course, they often become 'visible' to health services in adulthood, with clinical phenotypes often being precipitated by stressful life events such as related to inter-personal conflicts, financial hardships and loneliness. Progressive neuronal loss with ageing leads to mild levels of cognitive impairment in older age, when frank neurodegenerative pathologies can lead to the onset of dementias.

Adults

Prevention: A recent review of the evidence on preventing mental disorders found that anxiety and depression can be prevented, and that methods to prevent first-episode psychosis appear promising.¹⁷⁷ Even though the effect sizes identified were small, these can have meaningful impacts at the population level. Organizational level interventions can promote mental health in the workplace, including mental health consistent work-place policies (for example on bullying and enabling access to screening and CBT for symptoms of depression and anxiety) and mental health training for managers can reduce sickness absence.¹⁷⁸ The evidence from low resource settings is limited, although there is promising evidence for the SOLVE package, developed by the International Labour Organization, which focuses on integration of stress reduction and awareness

of alcohol and drug misuse, into occupational health and safety policies.¹⁷⁹ Interventions to prevent alcohol and drug misuse include limiting their availability through taxes and measures to control price (e.g. market regulations and setting minimum prices with measures to prevent price discounts); limiting sales, advertising and promotion; and implementing national policies that reduce legal blood alcohol content for drivers; and enforcing minimum drinking ages.¹⁸⁰

The limited evidence of the impact of interventions targeting social determinants of mental disorders shows that interventions for poverty reduction, especially in low and middle-income countries, including conditional and unconditional cash transfers, micro-credit and asset promotion programmes, do positively impact on mental health. The Kenyan unconditional cash transfer programme for rural households, found reductions in domestic violence, improvements in adult psychological wellbeing and reductions in salivary cortisol;¹⁸¹ the Ugandan asset promotion programme, found improvements in AIDS orphaned adolescents' self-esteem;¹⁸² while unconditional cash transfers for criminally engaged young men in Liberia found reductions in violent behaviour and criminality; and unconditional cash transfers among urban youth in Kenya, led to reduced odds of depression in young men. Such financial poverty alleviation interventions may improve nutrition, use of healthcare, parenting, income and food security, and can provide opportunities for further education and serve as a buffer against negative life events.¹⁸³ However not all financial poverty alleviation interventions have shown benefits; one study reported that short term loans in South Africa increased perceived stress levels¹⁸⁴ and concerns have been raised regarding the conditional nature of some cash transfer programmes, for example negative outcomes for loans and some forms of micro-credit.¹⁸⁵

Treatment, care and rehabilitation: A wide range of interventions have been shown to be effective for the treatment and care of adults with mental disorders or substance use disorders. In relation to the latter, effective interventions range from brief psychosocial therapies for common mental disorders to antipsychotic medication for psychoses, mood stabilizers for bipolar disorder and antidepressant medication for depression. Screening and brief interventions with components of feedback and motivational enhancement, medical detoxification, and the use of medications to prevent relapses form the range of interventions for substance use disorders.¹⁸⁶ Mutual and self-help organizations can contribute to the recovery from substance use disorders. Opioid substitution therapies are recommended for harm reduction in opioid dependence, including physical health problems and overdose.

The emergence of chronic conditions, mostly non-communicable disorders but also including HIV/AIDS, as the leading causes of the burden of disease globally, offers a unique opportunity for integration of mental health care in these platforms.^{187,188} Health care systems which have traditionally focused on acute care now need to re-engineer themselves for the care of chronic conditions. Underpinning the chronic care approach is the recognition that many mental disorders themselves run a chronic course; that mental and physical health conditions often co-occur with common antecedents and consequences (Figure S2: Shared determinants, interactions and actions required related to long term mental and physical conditions); that the treatment of co-occurring mental disorders can also improve the outcomes of physical conditions; and that the risk factors for premature mortality in persons with severe mental disorders are largely cardio-vascular, metabolic and pulmonary and integrated care must also reduce avoidable premature mortality among people with mental disorders.^{123,189}

A specific delivery model for the integration of mental health in primary care health care platforms, and in particular for the management of multiple morbidities, is collaborative care (Panel S15: TEAMcare: a collaborative model for depression and co-morbid disorders)¹⁹⁰; Task-sharing innovations can be embedded in routine care primarily through a collaborative care approach, where the lay health worker takes the role of case manager who coordinates care with the primary care provider and with specialists.¹⁹¹ Rather than taking a disease-specific, vertical approach,

integrated care adopts a person-centred approach, providing continuity of services after initial diagnosis for as long as necessary (Table S2: Benefits of delivering mental health care within integrated care).¹²⁷ The active ingredients of the integrated and collaborative care models are: screening to identify cases; promoting self-care; providing psychosocial treatments and adherence management; support of visiting mental health professionals, and active patient monitoring and follow up including, for people with severe mental disorders, rehabilitation, referral to community agencies, and health promotion.¹⁹² (Panel S16: Universal mental health coverage in Peru) Recent examples that demonstrate the feasibility of planning and providing care at the system level, including integrated primary health care, district and national level multi-stakeholder involvement, capacity building, policy support, and training and supervision for clinical staff are the Programme for Improving Mental health care (PRIME) and the Emerging mental health systems in low and middle-income countries (EMERALD) programme in several sub Saharan African and Asian countries.^{193,194}

A variant of integrated care for people with serious mental disorders entails bringing medical services to the psychiatric hospital, as has taken place in Rwanda where HIV services were integrated into psychiatric care at the tertiary (hospital) level enabling patients to receive testing and treatment in the hospital and also to return for psychiatric care and HIV care during outpatient visits based at the hospital's clinic (Panel S17: Integrated HIV care for people with mental disorders in Rwanda). Interventions to support work and vocation such as the Fountain House and Clubhouse, which build livelihood skills and social support (Panel S18: Clubhouse-Improving mental health through community building), as well as the individual placement and support programmes is an essential component of a comprehensive response to the goal to achieve inclusion for people with serious mental disorders.

Older people

Prevention: Healthy active ageing is an attainable goal, already achieved by many, even under adversity such as declining health, increasing functional limitation, bereavement with loss of lifelong partners and friends, and social isolation. In terms of health promotion, mental health and wellbeing among older people is indivisible from general health and functioning, and social welfare. Health promotion across the life course, chronic disease prevention, optimisation of functioning and enabling participation, and improving the quality and accessibility of general healthcare are all highly salient to improvements in mental health among older people. The actions required to achieve progress are encompassed in the WHO Global Strategy and Action Plan on Ageing and Health (2016-2020).¹⁹⁵ These include; aligning health systems to the needs and human rights of older persons, developing age-friendly environments, and strengthening long-term care. Within each of these areas, there is recognition of the need to empower older people, respect and promote autonomy, and strive for more effective and comprehensive social protection against the economic and health risks.

Chronic diseases and associated disability, the prevalence of which increases with age, are by far the most important risk factors for the onset of late-life depression. Such multi-morbidity among older people is a major driver of health and social care costs, and a significant challenge to the design and delivery of healthcare services that meet the needs of older people.¹⁹⁶ Interventions to prevent chronic diseases, such as smoking cessation and reduction of hypertension, should have secondary benefits on reducing the incidence of depression. Suicide rates are elevated, particularly among the oldest, and suicide attempts have a high case fatality; low mood, alongside physical illness, pain, and social disconnectedness are the main associated factors.¹⁹⁷ Suicide prevention efforts require better detection and treatment of depression (awareness among community gatekeepers, health professional education and indicated screening), systematic assessment and management of all suicide attempts, and telephone contacts to engage vulnerable older people is also considered to be a promising strategy ~~(ref)~~.¹⁹⁷ Functional impairment has been

used to target older people with sub-syndromal depression who are likely to progress to clinical episodes, and provision of low-level stepped care interventions seem to be cost-effective under these circumstances.¹⁹⁷

Dementia prevalence doubles with every five year increase in age, and is the dominant contributor to the mental disorder burden in older people.¹⁹⁶ The diagnosis gap for dementia remains as high as 50% in many HIC, and can exceed 90% in LMIC. Reviews of modifiable risk factors for dementia support a causal role for less education, midlife hypertension, smoking, physical inactivity and diabetes across the life-course.¹⁹⁸ Reinvigorated preventative efforts to reduce exposure levels can yield important and widespread health benefits for older people in ageing populations. As many as one-third of dementia cases may be preventable,¹⁹⁹ with tentative evidence of declining incidence in some HICs.²⁰⁰

Treatment, care and rehabilitation: Most interventions for mental disorders in adults are also applicable to older people, although medication doses may need to be reduced and the risk of side-effects and drug interactions may restrict options for some. Low-intensity psychological interventions with efficacy across the spectrum of severity should be prioritised as the first phase of stepped care for depression.²⁰¹ Behavioural activation, focussing upon renewed engagement in pleasurable activities and greater social participation, is a promising therapeutic option. There may also be trans-diagnostic applications; behavioural activation is helpful for patients with depression as well as dementia, and shares common elements with cognitive stimulation therapy.²⁰² (Panel S19: IMPACT - Improving access to care for late-life depression)

The progressive course of dementia cannot at present be altered through therapeutic intervention, but symptomatic treatments and support are helpful. Acetylcholinesterase inhibitors and cognitive stimulation can improve aspects of cognitive function. Education, training and support reduce carer strain and psychological morbidity, and, in high-resourced settings, delay or avoid transition into care homes.¹⁹⁹ Such interventions may be more effective early in the disease course, and earlier diagnosis allows those affected to participate in advanced care planning while they retain capacity to do so. Beyond these specific evidence-based interventions, the key principles of dementia care are similar to those of chronic disease care described earlier and include a need to continue from diagnosis to death, be holistic and person-centred, and to be well-integrated from primary to specialist care, and also between health and social care sectors.²⁰³ There is emerging evidence to support the effectiveness of case management to coordinate care for people with dementia and their carers. (Panel S20: The Kintun program for families with dementia) WHO's iSupport is an example of online training programmes to support caregivers of people living with dementia, using technology.²⁰⁴

Governments and health systems around the world face a fundamental challenge – how to increase the current very low levels of coverage of diagnostic, treatment and continuing care services, in the face of rising numbers of older people affected, while maintaining or improving quality, and at the same time keeping costs under control.²⁰³ In high resourced settings the focus needs to be upon increasing the efficiency with which services are provided, through integration, coordination and task-sharing. Across most low resourced settings, specialist multidisciplinary care for older people has been slow to develop, and primary and community care are ill-equipped to offer age-appropriate services, including support for carers. In this context, the World Health Organization has recently released the Integrated Care for Older People (ICOPE), an evidence-based guideline for the assessment and management of common, and usually multimorbid, impairments; cognition, mood, nutrition, mobility, vision and hearing, and continence, designed for non-specialist health workers, using home-based interventions for older people to prevent, reverse or slow decline in intrinsic capacities.²⁰¹

Interventions for vulnerable groups

A key focus of this Commission is redressing health inequalities and addressing human rights. Within the wider range of people with mental disorders, there are specific groups of vulnerable

people with higher levels of need, including people in humanitarian emergencies, people in institutions and people who are both mentally ill and homeless.

People in humanitarian emergencies

The Inter-Agency Standing Committee (IASC) Reference Group on 'Mental health and psychosocial support in emergency settings' was established in 2005 in the aftermath of the Asian tsunami to develop inter-sectoral normative guidelines and provide ongoing high level coordination for future emergencies. These guidelines recognise the need for protection and human rights standards, and to identify, monitor, prevent and respond to threats through social and legal protection.²⁰⁵ They are designed to apply to disaster management, general health, education, water and sanitation, food security and nutrition, shelter, camp management, community development and mass communication³³ and reinforce the minimum standards in the Sphere Guidelines, which also include mental health standards.²⁰⁶ The guidelines use a stepped approach to care: (1) promoting the wellbeing of the general population through basic security and services, and supporting family and community networks; (2) non-specialised worker delivered interventions⁹¹ for the smaller number of people requiring more targeted individual, family or group interventions to recover from their distress; and (3) specialised services delivered by professionals to severely distressed individuals (Panel S21: A collection of inter-agency resources for mental health and psychosocial support in humanitarian settings).

There is a substantial body of evidence on effective clinical interventions for persons with mental disorders in such humanitarian settings. The guiding principles include reinforcement of existing community resilience, avoiding medicalization of distress, pro-active case identification with referral to appropriate interventions, integration into emergency medicine and care responses, and actively promoting service use.²⁰⁷ A range of psychosocial interventions, such as trauma-focused cognitive behavior therapy,²⁰⁸ narrative exposure therapy and transdiagnostic psychological therapies²⁰⁹ including those specifically targeted for children,¹³² have some empirical support. Through these efforts (see: www.mhpss.net), there is now a stronger alignment between the mental health and psychosocial support in the humanitarian context and other global mental health initiatives than previously. Importantly, individuals already living with mental disorders may be at particularly high risk during environmental or humanitarian disasters and special efforts may be needed to protect them from harm and to maintain therapeutic and other supports during a time of crisis. An active role for members of local communities and local authorities at every stage of organizing mental health care in these contexts is essential for successful, coordinated action and the enhancement of local capacities and sustainability. The coordinated response should ensure a long-term view that the response builds the foundation of a sustainable mental health care system (Panel S22: Building a primary mental health care system in post-disaster Aceh)

People living in institutions

The evidence from deinstitutionalisation in high income countries is unequivocal - where hospital closure programmes have been carried out reasonably well, and not used as an occasion to reduce the overall mental health budget, then the overall quality of life, satisfaction and met needs of people with long term mental disorders who move from hospital to community care is improved.²¹⁰ In terms of the overall global picture regarding deinstitutionalisation, it is clear that community-based models of care are not inherently costlier than institutions, once account is taken of individuals' needs and the quality of care.²¹¹ Yet such hospital closure programmes have proven to be slow, and cultures of institutionalised care stubbornly resistant to change. This is true for most regions of the world but is a serious problem in relatively wealthy countries that have a legacy of large-scale institutionalisation, such as Eastern Europe.²¹² The World Mental Health Atlas shows little change since 2002 in service structures in low income countries,²⁵ while a moderate degree of change to develop community care has occurred in some middle income countries.

However, it is a matter of great concern that as the number of patients in mental hospitals have gone down, prisons are becoming the modern day mental asylums in some countries. The number of persons with serious mental disorders in US prisons, estimated at nearly 400,000 in 2014, is nearly ten times the number remaining in the nation's state hospitals.²¹³ Conditions in prison can

exacerbate mental distress.²¹⁴ Release from prison often results in discontinuity of treatment and care.²¹⁵ Where intensive treatment options for people in psychiatric crises are few, prisons may serve as inappropriate replacement institutions.²¹⁶ This finding reinforces the requirement to provide services in the community to support people with long-term and complex needs²¹⁷ and to provide appropriate mental health and substance abuse programs in prisons that include a range of psychological, social and medication based therapies. It is clear that the SDG call for universal health coverage must also apply to people, including young people, with mental disorders in prisons and in other forms of detention.

Institutions large or small can operate with low care standards. Indeed, the call to close the care “quality” gap is arguably as important as reducing the mental health treatment gap. Advocacy for better institutional standards and respect for human rights is integral to quality care. Initiatives like WHO’s Quality Rights program²¹⁸ which promotes the inclusion and empowerment of people with severe mental disorders, demonstrate the principles and feasibility of change for the better (Panel S23: Improving quality of care in mental hospitals using a human rights approach). In addition to evidence-based measures to reduce admissions to hospital wherever possible, improving living conditions and care in institutions is a critical goal where they do exist as part of a balanced mix of services.²¹⁹ Successful hospital reform requires sustained strategic leadership, a realistic timescale for a phased transition to a more community-based pattern of care, where possible brief double running costs while community services are initially established, and active support from the relevant governmental and municipal authorities, including housing and social services/insurance agencies.²²⁰

Homeless people

Homelessness is both a risk factor for, and a recognised consequence of, mental disorders, and increases the risk of suicide.²²¹ Among children and young people who are homeless, the prevalence of mental disorders is also markedly raised.²²² Addressing barriers to health care and social interventions in this diverse group of people can lead to lasting health gains.²²¹ The provision of secure housing,^{223,224} and focused substance use interventions such as Motivational Interviewing are effective in reducing mental health and substance use problems in homeless population. Better outcomes, in terms of quality of life, and reduction in hospital admissions have been associated with the provision of community-based support, such as assertive community teams or critical time interventions for mental and substance use disorders.²²³ recognized interventions include ‘Chez Soi’ or ‘At Home’, an example of ‘housing first’ in Canada. Examples in LMICs include rehabilitation centres and community re-engagement in West Africa,²²⁵ and mental health care integrated with sheltered accommodation in India (Panel S24: The Banyan: alternative housing for homeless women with mental disorders).

SECTION 4: THE WAY FORWARD

The progress made in the global mental health agenda in the last decade has been considerable, but much more needs to be achieved in all countries, especially in resource poor settings, by overcoming the barriers described in Section 1. The sustainable development framework provides an opportunity to reframe mental health and make it an integral component of the broader global development agenda. While mental health is explicitly recognized in the SDG Goal 3, it is also important to note that all other SDGs have been conceptualised to be integrated and indivisible - progress on each SDG supports all others. Hence, the target of reducing the burden of mental disorders is supported by progress made on other goals and targets *and vice versa*. This is an important conceptual shift since mental health has always, and in all societies, remained isolated from mainstream efforts in health and development. This Commission sets out a new perspective to demonstrate how such integration is urgently needed, justified, and ready to be implemented. The previous sections of this Commission provide an historical overview of the journey to this milestone, proposed three principles to reframe mental health in line with this paradigmatic shift,

and identify the actions that are needed to make this a reality. This final section presents a way forward for transforming mental health globally within the SDG era.

The Commission strongly recommends a public health approach to the objective of promoting mental health and reducing the global burden of mental disorders within the sustainable development framework. Such a public health approach consists of actions aimed at protecting mental health for all, preventing mental disorders among people at high risk, and providing treatment and care to people with the lived experience. This approach encompasses both policies and actions to create an environment that decreases risks and vulnerabilities while also developing and strengthening services to provide timely and comprehensive quality mental health care to people who need it. This approach follows the principles of being evidence-based and supporting equity and human rights. We do not see a dichotomy between the public health and clinical approaches; indeed, we explicitly include delivery of clinical interventions as an integral and essential component of the public health approach.

The Commission fully endorses the objectives of WHO's Mental Health Action Plan 2013-2020 and goes beyond them, not least in aligning with the SDGs. It provides evidence for many of the actions recommended by the Action Plan, but importantly it also identifies innovative ways in which mental health can be reframed and these actions can be implemented in a variety of diverse settings. The Commission adds the *how* to the Action Plan's *what*. The Commission fully recognises the diversity of settings *across* countries as well as *within* countries and suggests that its recommendations are implemented in an incremental manner depending on the starting point within a particular setting and the likely availability of human and financial resources.

Key messages and recommendations

1. Mental health needs to be reframed within the sustainable development framework

1.1 Mental health is a global public good

Mental health has often been considered as a concern exclusive to people with bio-medically defined mental disorders. While that focus continues to be important, it is appropriate to view mental health as a universal human attribute and an indivisible component of overall health - important to all people in all countries and at all ages. Indeed, mental health is a global public good. In its simplest conceptualization, global public goods are those that should be accessible to all people worldwide, and to both present and future generations. No person should be excluded from a public good ('non-excludable') and possession by one person does not deny it from others ('non-rivalrous'). Mental health is a critical contributor to the concept of human capital, which is being considered as a key driver of the wealth of nations.⁴⁹ The dimensional concept of mental health lends itself to identifying public policies that promote and protect mental health for all people, irrespective of the presence of a mental disorder, much more than the more restrictive concept of dividing all people between those who do not have a mental disorder and those who do. This, however, must not be interpreted as a rejection of categorical diagnoses and classification systems like ICD-10 which remain useful and indeed currently indispensable for clinical practice. Application of a staged model of care across the spectrum of severity can enhance the efficiency and effectiveness of services, overcoming some of the constraints of binary categories.

1.2 Mental health of each person is the unique outcome of the interaction of environmental, biological and developmental factors across the life course.

Mental health is determined by multiple risk and protective factors interacting in a complex and dynamic manner over the life course, so that the mental health of each person is the product of a unique trajectory. Mental disorders have been known to be caused by social, biological and genetic factors for a long time, but the most significant advance in recent years is the evidence of brain development and plasticity throughout the life course, especially in the first two decades, which provides a convergent explanatory framework to explain how social determinants influence brain functioning and, ultimately, mental health, mediated by biological and genetic mechanisms. This

convergence has substantial implications for promoting mental health during developmentally sensitive periods, such as the early childhood, adolescence and old age.

1.3 Mental health is a fundamental human right

The sustainable development agenda is a right-based framework. Although it is agreed that “enjoyment of the highest attainable standard of physical and mental health” is a right of every person,²²⁶ mental health is not included in the basic healthcare package offered to people in most countries. While a right-based approach to mental health applies to all persons, an equity perspective compels us to give priority to vulnerable populations. These populations include persons affected by conflicts, natural disasters, and living in extreme poverty. Groups of people who are discriminated against due to their gender, age, race, ethnicity, sexual orientation, disability or beliefs are often vulnerable, requiring specific protection from risks to their mental health. A very special case needs to be made for the rights of people with mental disorders since these rights are very often violated within communities as well as within institutions such as mental hospitals and prisons. Strong safeguards exist within UN conventions such as the CRPD,²²⁷ but specific actions to ensure implementation of these conventions are very inadequate. One of the urgent tasks in this area is to develop consensus driven operational guidelines **and capacity** for the realization of CRPD keeping in mind the realities of diverse resource settings and the best interests of the beneficiaries.

2. Mental health care is an essential component of universal health coverage

2.1 The call for action to scale up services for mental disorders is still very much relevant

More than 10 years since the *Lancet* issued a call for action for scaling up services for mental disorders,²²⁸ access to mental health services remains very poor and fragmented for the vast majority of people in the world. Though effective interventions exist and affordable modalities of their delivery have been proven to work, the actual scale up of quality mental health services has not happened in most countries. This Commission must therefore reemphasise the call for action for scaling up mental health care, with even more urgency. Mental health care must be included as an essential component of UHC and access to quality care and financial risk protection must be ensured. Inclusion of mental health within UHC ensures that the concept of indivisibility of physical and mental health is operationalized and new silos are not created or perpetuated. As we celebrate the 40th anniversary of the famous Alma Ata on health for all, we need to ensure that mental health is fully integrated in primary health care. This will involve inclusion of mental health within the basic care packages within primary health care and within reimbursement and insurance schemes as a standard, not as an option. Appropriate attention needs to be placed on people with severe mental disorders, who often find it even more difficult to access care, including for physical health conditions. In view of the established evidence of the effectiveness of task sharing strategies by non-specialist providers, this should form the foundation of the mental health care system. However, such task sharing can only achieve its full potential with the active engagement of mental health specialists **including psychiatrists**. This requires an expansion in the roles of mental health specialists to training, supervision and coordination tasks. These revised roles would also ensure optimal use of their clinical expertise and consequent rationalization of their clinical work load. Table 1 provides some priority actions for scaling up care in low, middle and high-income settings.

{Table 1 here: Priority actions for scaling up mental health care in low, medium and high resource settings}

2.2 Threats to mental health must be anticipated and counter-acted

Demographic change, particularly the increase in life expectancy and the rising number of young adults and older people, is a key transition; this will put heavier demands on mental health and related social care services. Increasing social inequities, unplanned urbanization, changing family structures and economic and employment uncertainties coupled with large-scale migrations due to war and climate change, all pose their own challenges to global mental health. Child maltreatment and gender-based violence are common, enduring and significant contributors to poor mental health, that are also exacerbated in the face of these newer threats. Policy actions must not only counter-act these drivers

of poor mental health (as described in recommendation 3.1) but simultaneously invest in the capacity of the mental health system to address the increase in the numbers of persons who will need care.

2.3 Technological solutions must be embraced

Digital technology offers potential to bring about significant changes in mental health care, including training and supporting providers, monitoring care practices, strengthening information systems and promoting self-help. Digital technology could be used for disseminating information about mental disorders through anti-stigma campaigns and offering platforms for sharing of the lived experience. Quality assurance and potential mental health risks of digital technologies are key concerns; more work is urgently needed on effective strategies to respond to them. Further, digital interventions can only be considered as an additional tool, rather than a substitute for, traditional approaches to mental health care, not least to avoid increasing inequities as the most vulnerable groups may not have access to these.

3. Mental health must be protected by public policies and development efforts

3.1 Actions on social determinants of mental health are critical

The promotion of mental health and well-being, and the prevention and treatment of mental and substance use disorders, requires action on the other SDGs, and can also contribute to the achievement of them. While a detailed discussion of these actions is outside the scope of this Commission, Table 2 summarizes some actions for the relevant SDGs.

[Table 2 here: Actions for protecting mental health and wellbeing within the SDG framework]

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3.2 Actions must target developmentally sensitive periods early in the life course

The evidence for the large impact of social determinants during childhood and adolescence on mental health and on the effectiveness of interventions to prevent mental disorders during this phase of the life course must be acted upon. Early identification of risks and vulnerabilities to mental health and delivery of evidence-based interventions, such as life-skills curricula, parenting interventions, whole-school programs and protection from neglect and violence must be applied in all populations.

4. Public awareness and engagement of people with mental disorders must be strengthened

There is need for increasing awareness and engagement of civil society in mental health, in particular of persons with the lived experience of mental disorders. This is likely to enhance both self-help and demand for services when needed. Social contact between people with and without experience of mental disorders is the central active ingredient to reduce stigma and discrimination,¹⁴⁰ as used in many international and national campaigns.²²⁹ There is a pressing need for supporting more persons with the lived experience to be leaders, advocates and peers, to address barriers to accessing to mental health care, and to social inclusion and full citizenship.

5. Investments for mental health must be substantially enhanced

5.1 National financing of mental health care must be increased substantially

Countries at all income levels allocate a far lower proportion of their health budget to mental health care than is warranted based on proportional burden and cost-effectiveness estimates. Health budgets must have an increased proportion of funds for mental health care; while the exact percentage can be arrived at after an assessment of needs along with other priorities, in general, low and middle-income countries must bring up their mental health allocation at least to 5% and high-income countries to 10%. This should be in addition to allocation for other developmental priorities that will also be supportive of mental health. While additional resources are essential, there is also an immediate opportunity for more efficient and effective use of existing resources, for example through the redistribution of mental health budgets from large hospitals to district hospital and community-based local services, the introduction of early interventions for emerging mental

disorders, and re-allocating budgets for other health priorities to promote integration of mental health care in established platforms of delivery.

5.2 International development assistance must prioritise mental health

Mental health must be a priority within international development assistance which currently contributes a pitifully small proportion to support mental health care in the least resourced countries despite evidence of the cost-effectiveness of mental health interventions which compare favourably with other health and development interventions. Recent decades have seen emergence of several large foundations investing heavily in health and development and we call on these foundations to recognize the alignment between their current priorities and mental health (Table S3)

5.3 A Partnership for financing and investing in mental health is urgently needed

Apart from taxes and development assistance, innovative financing mechanisms such as social impact bonds and multi-partner trust funds must be explored. We call for a Partnership for transforming mental health globally through the mobilization, disbursement, utilization and monitoring of these funds. Such a Partnership must include engagement of UN agencies and development banks, academic institutions with expertise in implementation and prevention relevant to mental health, the private sector (in particular the technology and pharmaceutical industries), civil society organizations representing the voices of persons with the lived experience, and policy makers from national and international agencies.

6. Innovation and implementation must be guided by research

Investments are needed not only for scaling up mental health interventions but also for continuing knowledge creation. A critical opportunity for mental health science is the convergence of knowledge from diverse disciplines which offers the promise of new understanding of the nature of mental disorders and how they develop, more effective psychosocial and pharmacological interventions, and an understanding of how to implement these effective interventions at scale. For example, integrating genetics, neuroscience and clinical disciplines could result in improved clinically meaningful phenotypes, an ability to detect these disorders early, and the potential of uncovering new environmental and biological mechanisms as targets for intervention. Similarly, expertise from the political, economic and social sciences needs to be harnessed to answer critical questions around how to deliver interventions at scale. The efforts to scale up mental health interventions presents an important opportunity to embed scientific research alongside the implementation of programmes. These research themes are aligned with the Grand Challenges in Global Mental Health³⁴ which set the stage for the implementation science which has transformed the evidence base of the field and whose broader goals have the potential to guide actions towards the achievement of the SDG targets on mental health and wellbeing (Table 3). Research investments must be increased, and co-ordinated across funders and recent developments, such as the emergence of the International Alliance of Mental Health Research Funders,²³⁰ are indicative of the steps being made in this direction. Early and continuous dialogue between researchers and policy planners is especially important in low and middle income countries to ensure that the research conducted is relevant to the needs of the country and has a direct and immediate impact on policy and practice.

[Table 3 here: Research priorities for global mental health and sustainable development]

7. Monitoring and accountability for global mental health must be strengthened

7.1 A comprehensive monitoring mechanism for mental health should be implemented

Though WHO's Mental Health Action Plan has a set of indicators and targets, these are insufficient for monitoring the reframed mental health agenda proposed by this Commission. WHO's Mental Health Atlas provides a unique source of comparable information from almost all countries, but has inadequate data on a number of variables and issues on quality since the information is collected exclusively from governmental sources. Steps must be taken to improve data coverage and quality in Atlas. Similarly, one of the specific indicators for monitoring mental health in SDGs (suicide mortality rate) tracks a very specific final negative outcome. For an all-round impact on global

mental health within sustainable development, there is need for more robust, long-term and comprehensive monitoring and accountability mechanisms. The Commission has proposed a set of mental health and sustainable development indicators which covers not only key aspects of the mental health care system itself but also acknowledges the influence of factors outside it. Over and above core indicators of mental health system capacity, provision and outcomes, we identified a number of other indicators relating to domains of social and environmental determinants of mental health, for which there are already widely available global data being collected for SDG or other reporting (Table 4).

[Table 4 here: Indicators for mental health and sustainable development]

Reporting of these data can take more than one form. Most simply, a compilation of available data can be pulled together into a country profile, as already done through the WHO Mental Health Atlas (http://www.who.int/mental_health/evidence/atlas/profiles-2014). Such profiles do not provide information about overall performance relative to other countries or to agreed notions of better or worse performance or to inequities within the country. For that purpose, it is possible to re-fit country-specific and sub-national scores for selected indicators to a common scale and then, if desired or justified, partition scores into categories of relative achievement or synthesise them into an overall index as has been done for human development or sustainable development itself.²³¹⁻²³³ Such a synthesis, however, represents a highly simplified abstraction of what we have already argued is a complex system of influences and their interactions. Accordingly, the Commission considers it premature to produce a mental health system performance index at this time, and instead, presents a preliminary investigation of the selected indicators which we consider have the most influence or predictive value for the SDG targets for mental health (see Panel 89).

[Panel 89 here: Mental health and well-being: what are the key predictors?]

7.2 Accountability frameworks for mental health must be put in place

Increased investments must be matched with strengthened accountability frameworks.

The WHO already has a mechanism for reporting progress to its governing bodies against the agreed goals and targets of the WHO Mental Health Action Plan.^{25,234} Monitoring and accountability in an era of global mental health and sustainable development needs an oversight body with a broader inter-sectoral representation and mandate. At the global level, this role could be played by the multi-sectoral Partnership for transforming mental health globally (as proposed earlier). The Partnership's accountability function may be performed by a network of Hubs, governed by a secretariat, with specific expertise needed for supporting countries in the collection, analysis and reporting of data, as well as take on several other roles, such as priority setting, resource allocation, quality assurance, capacity building, evaluation of impact and continued tracking of needs. Similarly, at the national level, accountability can be enhanced through an autonomous, inter-sectoral oversight body charged with similar tasks, with a particular focus on reducing mental health disparities within country. Complimentary to this approach would be to incorporate mental health into the remit of existing accountability mechanisms, such as those established for child and maternal health or for NCD prevention and control; the recent establishment of the independent *High Level Commission on NCDs* by WHO which has included mental health in its remit is an example of such an opportunity. Additionally, existing UN Conventions, in particular those relating to the rights of the child and the rights of persons with disabilities, provide a powerful basis for calling responsible authorities to account using established mechanisms for reporting on their implementation.

A note on how the actions of the Commission itself might be measured- we suggest the following: citations of the Commission in national and international policy documents, attributions of the work of the Commission to key policy or funding commitments, citations in academic research literature and influence on research agendas and funding.

Conclusion

When world leaders adopted the SDGs, they were committing themselves to action on a much larger scale than ever before in the history of humanity. Promoting mental health, preventing mental disorders, and including mental health care in universal health coverage is fully part of this agenda. While 'no health without mental health'²³⁵ continues to be an important aspiration, we have now entered the era of 'no sustainable development without mental health'. Mental health has, for far too long, remained in the shadows. New knowledge accumulated in recent years, and new international and national commitments made at the highest levels over the same period, have the potential to transform this situation. Based on this knowledge and opportunity, this Commission proposes that mental health needs to be reframed. Urgent action is needed to protect mental health and prevent mental disorders, alongside scaling up services to detect, treat, and support recovery of people with mental disorders. This places mental health at the very centre of sustainable development in all countries and communities, and for all people. To realize this vision, substantial and urgent investments are needed at international, national and community levels not only within the health sector but also in other development sectors. Most importantly, we need a concerted and coordinated effort involving all the stakeholders concerned with realizing the mental health aspirations of the SDGs. We therefore call for a Partnership to transform mental health globally, with engagement of key sectors concerned with mental health, both at the global and at country and sub-national levels, and with the full involvement of people with the lived experience of mental disorders. We, the Lancet Commissioners on Global Mental Health and Sustainable Development believe that urgent action to fully implement our recommendations will contribute to the attainment of both the health and to many other targets of the SDGs.

Non-text items

(Panels, Figures and Tables)

Panel 1: United Nations Sustainable Development Goals (SDGs) specifically pertaining to mental health

SDG 3	Ensure healthy lives and well-being for all at all ages
Target 3.4	Requests that countries: “By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being”
Indicator 3.4	Suicide mortality rate
Target 3.5	Requests that countries: “Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol”
Indicator 3.5.1	Coverage of treatment interventions for substance use disorders
Indicator 3.5.2	Coverage of treatment interventions for harmful use of alcohol
Target 3.8	Requests that countries: “Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all”

Panel 2: The five leading grand challenges for global mental health³⁴

1. Integrate core packages of mental health services into routine primary health care
2. Reduce the cost and improve the supply of effective psychotropic drugs for mental, neurological and substance use disorders
3. Train health professionals in low- and middle-income countries to provide evidence-based care for children with mental, neurologic, and substance use disorders.
4. Provide adequate community-based care and rehabilitation for people with chronic mental illness
5. Strengthen the mental health component in the training of all health care personnel to create an equitable distribution of mental health providers

Panel 3: A fresh perspective on global mental health and sustainable development

- Expanding the agenda of global mental health from reducing the treatment gap to reducing the global burden of mental and substance use disorders by concurrently addressing the prevention and quality gaps, and extending the scope of 'treatment' to include social care
- Proposing three key principles for the reframing of mental health
 - A staged approach to understanding, and responding to, mental health problems, as opposed to the binary approach of current classifications
 - Reconciling the nurture versus nature debates by converging the findings of the social and biological determinants of mental health problems on a life course trajectory of neurodevelopmental processes
 - Recognizing mental health as a fundamental human right for all people, in particular for people whose mental health is at risk or is already impaired
- Advancing the scaling up of four innovations in global mental health interventions
 - The task-sharing of psychosocial interventions to non-specialised workers as the foundation of the mental health care system;
 - The coordination of this foundation with primary and specialist care to achieve a balanced model of care
 - Adopting digital platforms to facilitate the delivery of interventions across the continuum of care, and
 - Implementing community-based interventions to enhance the demand for care

Panel 43: Definitions of key terms*

Happiness: subjective satisfaction with life, which incorporates both the emotional experience of feeling good or experiencing pleasure (hedonic tradition) and the perception of living a meaningful and good life (eudaimonic tradition); increasingly viewed as an important way of judging the success of society in meeting human needs.²³⁶

Wellbeing: subjective evaluation of life satisfaction.²³⁷ Broader definitions also consider less subjective social and personal circumstances that might be considered to contribute to a good life.

Quality of life: an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.²³⁸

Mental health: the capacity of thought, emotion and behaviour that enables every individual to realize their own potential in relation to their developmental stage, to cope with the normal stresses of life, to study or work productively and fruitfully, and to make a contribution to their community.²³⁹

Mental disorder: disturbances of thought, emotion, behaviour, and/or relationships with others that lead to significant suffering and functional impairment in one or more major life activities,²³⁹ as identified in the major classification systems such as the WHO International Classification of Diseases (ICD) and the Diagnostic and Statistical Manual of Mental Disorders (DSM).

Social suffering: The ways in which the subjective components of distress are rooted in social situations and conditioned by cultural circumstance.²⁴⁰

Psychosocial disability: Disability associated with impairments related to mental disorders, which limits the ability to participate fully in social and community life. These disabilities come about as a result of the interaction between these impairments and the way that societal barriers prevent full participation.²⁴¹

Recovery: From the perspective of the individual with mental illness, recovery means gaining and retaining hope, understanding of one's abilities and disabilities, engagement in an active life, personal autonomy, social identity, meaning and purpose in life, and a positive sense of self.²⁴² Importantly, it is defined by the person themselves and not others' definition of what recovery means.

Resilience: the capacity of individuals to adapt to adversity or stress, including the capacity to cope with future negative events.²⁴³ Resilience can also be seen at a community level, and in fact is recognised as an important factor contributing to the relatively low proportion of people in emergencies who develop long-term mental disorders.

* This list is not intended to be comprehensive, and focuses on key terms that are relevant to the personal or human experience of mental health and mental disorder. It does not include broader terms such as "mental health problems", "mental health issues" or "mental ill-health".

Panel 54: The opioid use crisis in the United States of America

More than 64,000 people died from drug overdoses in the United States of America in 2016 alone,²⁴⁴ an increase of 540% over the previous three years. It is now widely accepted that this trend has been preceded by a significant increase in prescriptions of opioids by health professionals: according to some reports prescription opioid sales quadrupled from 1990 to 2010, and the Centres for Disease control estimates that since 2000 more than 300,000 Americans have died from overdoses of prescription opioids.²⁴⁵ Several factors appear to have driven the rise of this epidemic. Chief among these is a growing trend of aggressive marketing of opioid compounds such as OxyContin to doctors, nurses and pharmacists by large pharmaceutical companies, notably Purdue Pharma.²⁴⁶ From 1996 to 2001 Purdue Pharma conducted over 40 national “pain management symposia” to market this product, attended by health professionals in picturesque locations. In a landmark case in 2007 the company was fined over \$600 million for misleading the public, although its profits far exceeded this amount. The problem is exacerbated by current policy that criminalizes opioid use: criminalization drives opioid-users to a black market, where heroin cut with cheap fentanyl or carfentanyl results in an unnecessary and often deadly consequences. Regulations to restrict opioid prescriptions and marketing of these highly addictive drugs have since been introduced in several high-income countries. In response to the opioid crisis, the U.S. Department of Health and Human Services has developed a 5-point strategy, including improving access to treatment and recovery services and promoting use of drugs that can reverse overdoses.²⁴⁷ In August 2017 the Trump administration declared the epidemic a national emergency, although at the time of writing the administration had not yet presented a planned response. But a concern has been raised recently regarding the prospect of a new global marketing initiative by producers of OxyContin targeting low and middle-income countries such as China, Brazil, other Latin American countries, the Middle-East and Africa ~~with less restrictive regulatory environments.~~²⁴⁸

Panel 65: Convergence in understanding mental health across the life course

The convergent model of mental health offers a unified perspective to tie findings emerging from developmental science, neuroscience, intervention science and epidemiology together, as illustrated by the following three life course cases.

In the early years of **childhood** adverse family circumstances result in children experiencing early life stress which can lead to mental health problems in later life.²⁴⁹ Structural magnetic resonance imaging (MRI) studies show that the volume of grey matter in the developing brain is dependent on family income and socio-economic status (SES) during early childhood and these effects are prominent in brain areas such as the hippocampus, amygdala, prefrontal cortex and the language cortex of the left hemisphere,²⁵⁰ which are important for cognitive functions such as memory, social-emotional processing, executive function and language respectively. Parenting interventions which target early life stressors or cognitive stimulation have been shown to improve cognitive outcomes in children and reduce the incidence of mental health problems in later life. The demonstration of the potential mechanisms that these interventions target has come from studies comparing animals raised in deprived environments to those reared in enriched ones.²⁵¹ Thus, the convergent model has allowed us to explain the major observations of the association of low SES with poor mental health in childhood and the beneficial impact of stimulation interventions in early infancy.

Cognitive psychology and neuroscience studies has transformed our understanding of not just the potential reason for the onset of mental disorders in **adolescence**. One of the unique transitions which occurs during adolescence is that the opinion of peers begins to take precedence over that of family members and parents. This sensitivity to peer influence in turn leads to adolescents being sensitive to social stimuli and having an increased propensity to undertake risky behaviours.²⁵² Delayed maturation of the prefrontal cortex, involved in impulse control and the reward system, could be responsible for behaviours related to impulsivity and risk-taking.²⁵³ Testosterone might moderate risky behaviours which might explain the sexual dimorphism observed in these behaviours.²⁵⁴ Interventions aimed at strengthening social and emotional competencies, often focusing on enhancing emotional regulation, packaged as life skills education,¹⁶⁹ mindfulness or yoga, can have preventive effects. Mindfulness meditation has been associated with structural changes in parts of the social brain network such as anterior cingulate cortex, medial prefrontal cortex and amygdala.²⁵⁵ Convergent models help elaborate the mechanisms of the onset of mental disorders in adolescence and how preventive interventions interrupt these pathways.

Mental health in **older adults** must also be understood from a life course perspective. Persons with more formal education in early life have a lower risk of developing dementia;¹⁹⁸ formal education may be a proxy for intelligence and brain development. Several studies suggest inverse associations between skull circumference and leg length and dementia risk in late life. There are several possible mechanisms;¹⁹⁸ quantitatively, larger and better developed brains with more neurones and richer connections could incur more neurodegeneration before failure becomes apparent ('brain reserve'); qualitatively, better educated individuals may have more facility to perform complex and efficient cognitive processing to compensate for damage ('cognitive reserve'); or those with better education may access healthcare services and adopt lifestyles that optimise brain health across the life-course. There is a dose response relationship between cumulative depression burden over the lifespan and the risk for cognitive impairment and dementia.²⁵⁶ Hypothesised causal mechanisms include the toxic effect of chronically elevated adrenal glucocorticoid production on hippocampal cells; biological links between depression and thrombotic, atherosclerotic and inflammatory cardiovascular disease pathways; and the impact of depression on cardiovascular disease risk behaviours, help-seeking, and treatment adherence.²⁵⁷ Recent research has highlighted the relevance of cognitive ageing and depression, which often

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accompany physical frailty, and in the case of depression, may play a causal role in its onset.²⁵⁸ It is possible that common biological mechanisms may underpin these associations, including, particularly, the trajectory of cellular ageing across the life-course (as indicated by epigenetic and genomic markers),²⁵⁹ and immune activation.²⁶⁰ Further elucidation of these mechanisms, and their determinants will be a key step towards optimizing brain and mental health at all ages.

Panel 76: Aspects of mental health care which are pioneering across the whole of health care

- 1) The reconfiguration of care away from hospitals and into community settings.¹⁴⁴
- 2) A commitment to involving patients and family members in planning and providing services.²⁶¹
- 3) Providing aspects of social interventions alongside psychological and pharmacological treatments tailored to the needs of a specific individual (the hall-mark of 'person-centred care') through multi-disciplinary teams.²⁵
- 4) A focus upon co- and multi-morbidity across mental and physical long-term conditions.²⁶²

Panel 87: Realising the gains of scale-up - the case of depression

As a complement to real-world evaluations across different geographical and service settings, modelling techniques can be and have been used to inform estimation of the expected impacts of mental health programme scale-up.²⁶³ To illustrate the potential health impacts of scaled-up action across the life course, the Commission has assessed the comparative impact of a set of scaled-up treatment and prevention strategies, using depression as the index disorder, owing to its prevalence throughout the life course, the disease burden it accounts for at the population level, as well as the availability of effective interventions. Seven intervention strategies were assessed (Table below). This intervention set is evidently illustrative of best practice rather than exhaustive. For each intervention, a consistently high intervention coverage rate of 80% was used to enable like-with-like comparison of population-level effect.

Effectiveness of depression prevention and management strategies over the life course

	Intervention strategy	Delivery platform	Age group	Target population	Health impact (parameter)	Effect size / Relative risk	Reference	Effect size (% change)
1	Caregiver / parental skills training	Community	5-9	Children	Disability	SMD = - 0.28 (-0.44~-0.13)	264	-5.2%
2	Life skills training in schools	Schools	10-14	Secondary school enrollees	Incidence	RR = - 0.45 (-0.58~-0.35)	265	-55%
3	Wellness programs in the workplace	Workplace	20-59	Employed adult workers	Disability	SMD = - 0.16 (-0.24~-0.07)	266	-3.0%
4	Social participation of older adults in the community	Community	60+	All	Disability	SMD = - 0.32 (-0.50~-0.14)	267	-6.0%
5	Psychological treatment for perinatal depression	Health care system	15-49	Women in the perinatal period	Disability	SMD = -0.38 (-0.56~-0.21)	268	-6.4%
					Remission		269	14.0%
					Incidence	RR = -0.72 (-0.94~-0.56)	270	-28%
6	Psychological treatment for depression in adults	Health care system	20-59	Adults with depression	Disability	SMD = -0.30 (-0.48~-0.13)	271	-5.6%
					Remission		269	14.0%
				Recurrent cases only	Incidence	RR = 1.39 (1.13~1.70)	272	-28%
7	Pharmacological treatment for depression in adults	Health care system	20-59	Adults with depression	Disability	SMD = -0.34 (-0.47~-0.22)	273	-6.4%
					Remission		269	14.0%
				Recurrent cases only	Incidence	RR = 2.03 (1.80~2.28)	272	-51%

Population-level health effects were generated for each year from 2015 out to 2030, with final year estimates subsequently expressed as a proportion of the total and age-specific disease burden attributable to depression, as reported for each country in WHO's Global Health Estimates for the year 2015. The strategic planning OneHealth tool, the mental health module of which has been applied to a number of previous analyses and country settings²⁷⁴ was used for the population modelling.

(http://www.who.int/healthinfo/global_burden_disease/estimates/en/index2.html). Analysis was carried out for a range of geographical and income settings with diverging demographic and socio-economic profiles, including: low-income, Africa (e.g. Ethiopia, Tanzania); lower-middle-income, Asia (e.g. India, Indonesia); upper middle-income, America (e.g. Brazil, Mexico); high-income, Europe (e.g. France, Germany). Population figures for each country are taken from the UN Population Division, while age and sex-specific depression prevalence estimates are derived from the Global Burden of Disease 2015 study (<http://ghdx.healthdata.org/gbd-results-tool>).

Results of the population-level depression modelling are shown in the table below. When delivered at scale (80% coverage), healthy life years gained per one million population in the year 2030 range from less than 5 (caregiver skills training for children aged 5-9 years) to more than 1,000 (long-term pharmacological treatment of recurrent depression in adults aged 20-59 years), reflecting the relative prevalence of depression at different ages, the relative size of the target group as well as the relative size of intervention effects. Life skills programmes for enrolled school students aged 10-19 years are capable of generating over 250 healthy life years per one million population, while wellness programmes in the workplace and social participation programmes for those aged 60 years or older lead to less than 50 healthy life years per one million population. Treatment of perinatal depression on an episodic basis generates close to 20 healthy life years per one million population; by comparison, treatment approaches that also proactively identify those at risk and thereby prevent the onset of depressive episodes have population-level impacts that are at least three times greater (76 healthy life years per one million population). Similarly, but for a much larger target group of all adults aged 20-59 years, proactive psychological and pharmacological treatment programmes have the potential to generate three to five times the health gain of programmes that manage depression cases solely on an episodic basis because they avert a proportion of recurrent episodes that would otherwise have occurred.

Estimated population-level impact of scaled-up depression interventions

S. No	Intervention	Target age / sex group	Healthy Life Years (HLY) gained per 1 million total population* (in 2030 at 80% coverage)	HLY gained as % of depression burden in target group*	HLY gained as % of depression burden in total population*
1	Caregiver / parental skills training	5-9, both sexes	2	4.2%	0.0%
2	Life skills training in schools	10-19, both sexes	255	36%	4.1%
3	Wellness programs in the workplace	20-59, both sexes	31	0.7%	0.5%
4	Social participation of older adults in the community	60+, both sexes	16	1.7%	0.2%
5a	Psychological treatment of perinatal depression on an episodic basis	15-49, females	20	0.8%	0.3%
5b	Psychological treatment for perinatal depression on a proactive basis	15-49, females	76	3.2%	1.2%
6a	Psychological treatment of depression in adults on an episodic basis	20-59, both sexes	239	5.4%	3.9%
6b	Psychological treatment of	20-59, both sexes	888	20%	14%

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	recurrent depression in adults on a proactive basis				
7a	Episodic pharmacological treatment of depression in adults on an episodic basis	20-59, both sexes	247	5.6%	4.0%
7b	Pharmacological treatment of recurrent depression in adults on a proactive basis	20-59, both sexes	1,434	32%	23%
	Total burden of disease for major depressive disorder in 2015 (per 1 million population)*	All ages, both sexes			7,265

* Values are the average for 8 countries across 4 income groups

Panel 98: Mental health and well-being: what are the key predictors?

Based on the Commission's proposed set of indicators for monitoring mental health and sustainable development (Table S4), a quantitative analysis was carried out to identify which of these variables had greatest explanatory value in predicting the SDG target of promoting 'mental health and well-being' (as measured by surveys of subjective well-being). To account for the substantial level of data missing (at random) across domains and countries, this analysis focused on indicators for which data are currently available for at least 75 countries. Since many data points were still missing for even these indicators, we used a Markov chain Monte Carlo (MCMC) algorithm to impute values for missing country variables, then we averaged across multiple iterations to obtain one dataset. Given the anticipated multicollinearity between predictors ($VIF > 5$ for 8/10 predictors), we used principal component analysis to extract 5 principal components with Eigenvalues > 1 from the following domains: (A) Mental health determinants: (1) Poverty, literacy, and income inequality component (47.88% of variance), (2) Employment and income inequality component (26.10% of variance); (B) Mental health systems and services component (56.97% of variance); and (C) Mental health system goals: (1) Social and financial risk protection component (45.51% of variance), (2) Suicide and alcohol consumption component (27.58% of variance). Then, we used a least absolute shrinkage and selection operator (LASSO) regression model with the principal components as predictors of subjective well-being to enhance prediction accuracy and interpretability. Out of the five principal components of the indicators identified and profiled, key drivers of subjective well-being at the national level are the **social and financial risk protection component** of mental health system goals ($\beta = 0.383$), and the **poverty, literacy, and income inequality component** of mental health determinants ($\beta = -0.362$), $R^2 = 0.61$, $R^2_{adj} = 0.588$, $R^2_{reg} = 0.583$, $F(3,185)=32.39$, $p<0.001$. These findings thereby lend support to a central hypothesis and argument of this Commission, namely that social and environmental determinants play a critical role in shaping population-level mental health.

Figure 1: The evolution of global mental health




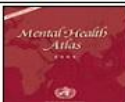










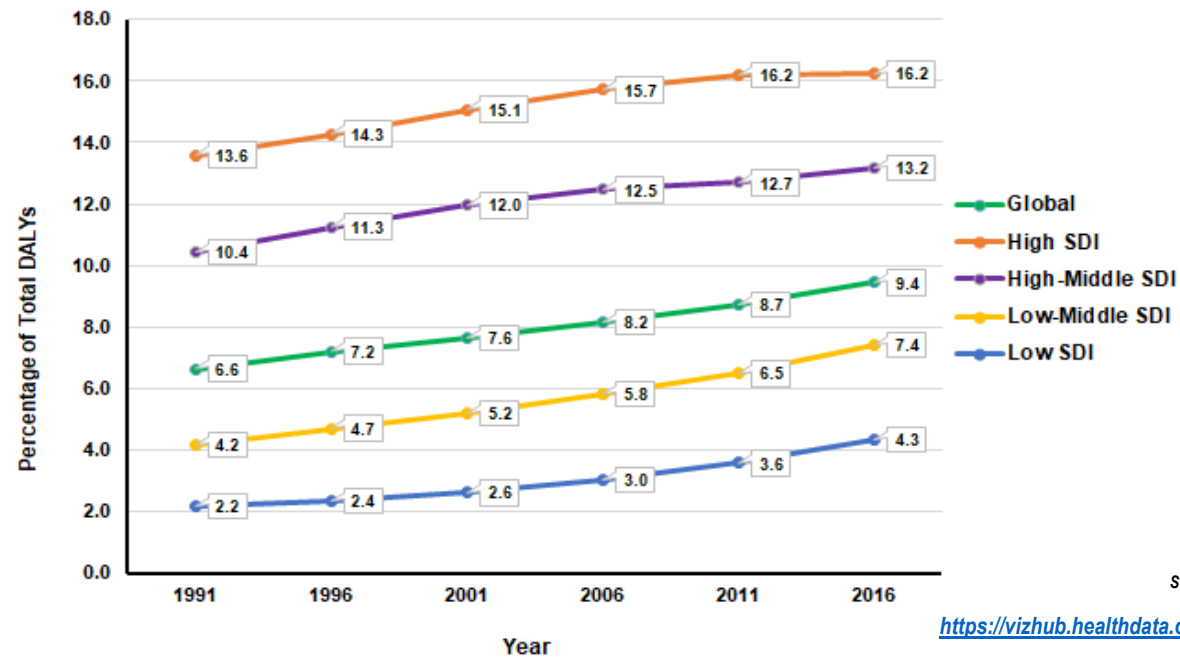
1990	The <i>Caracas Declaration of Mental Health and Human Rights</i> emphasizes the need for developing psychiatric care in close link with primary care through community-based services and advocates the need to anchor in a legal framework the restructuring of the services and to assure proper safeguards for the human and civil rights of patients.	
1995	The <i>World Mental Health Report</i> highlights the large, and growing, burden of mental disorders in low-income countries, their strong association with social determinants, such as poverty, displacement and violence, and the pervasive lack of care and abuse of human rights.	
2001	The WHO's <i>World Health Report</i> focussed on mental health for the first time and presented a public health perspective on mental health along with providing practical guidance to policy makers.	
2001	The WHO's <i>Mental Health Atlas</i> provided, for the first time, comparable data from the majority of countries on some basic indicators on mental health services and systems. Further editions have been published in 2005, 2011, 2014 and 2018.	
2007	The Lancet's first <i>Global Mental Health series</i> emphasizes the large 'treatment gaps' for mental disorders in low- and middle-income countries, and calls to action for scaling up services for mental disorders guided by the evidence of cost-effective interventions and respect for human rights.	
2007	The <i>Movement for Global Mental Health</i> , a virtual alliance of persons affected by mental disorders and practitioners of global mental health is formed to collectively champion the attainment of the call to action	
2007	The <i>United Nations Convention on the Rights of Persons with Disabilities</i> is adopted, and quickly signed and ratified by most countries in the world, coming into force in 2008. The Convention promotes, protects and ensures the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and promotes respect for their inherent dignity.	
2008	The WHO's <i>mhGAP</i> initiative, this flagship programme committed WHO to providing evidence based guidance and assistance to countries for scaling up care for mental, neurological and substance use disorders. Over the next 10 years, the initiative has assisted more than 100 countries.	
2011	The <i>Grand Challenges in Global Mental Health</i> , the most comprehensive priority setting exercise to guide research in global mental health, identifies implementation questions as the leading priority, ushering a wave of new funding for global mental health research.	
2013	The WHO's <i>Mental Health Action Plan</i> adopted with the highest level of political commitment from all 194 ministers of health in the World Health Assembly, and clear objectives, actions, indicators and targets for 8 years.	
2015	The ratification of the <i>United Nations' Sustainable Development Goals</i> recognizes the promotion of mental health, prevention of mental and substance use disorders, and universal health coverage as targets of the health goal.	
2016	The <i>Disease Control Priorities-3</i> publish recommendations for cost-effective packages of care for the prevention, treatment and care of mental disorders which are feasible for delivery through a range of platforms (from the community to specialist) and which can be prioritised as the mental health component of universal health coverage	
2016	The <i>Out of the Shadows</i> meeting and declaration of the World Bank and WHO recognized mental health not just as a global health priority, but as a global development priority.	
2018	The Lancet's <i>Commission on Global Mental Health & Sustainable Development</i> proposes a reframing of mental health to concurrently address the prevention and quality gaps alongside the treatment gap (for both clinical and social care interventions) to reduce the global burden of mental disorders.	

Figure 2: The rising Burden of Mental & Substance Use Disorders, Alzheimer's disease & other Dementias and Suicide (Self-harm) by Socio Demographic Index (SDI) Groups



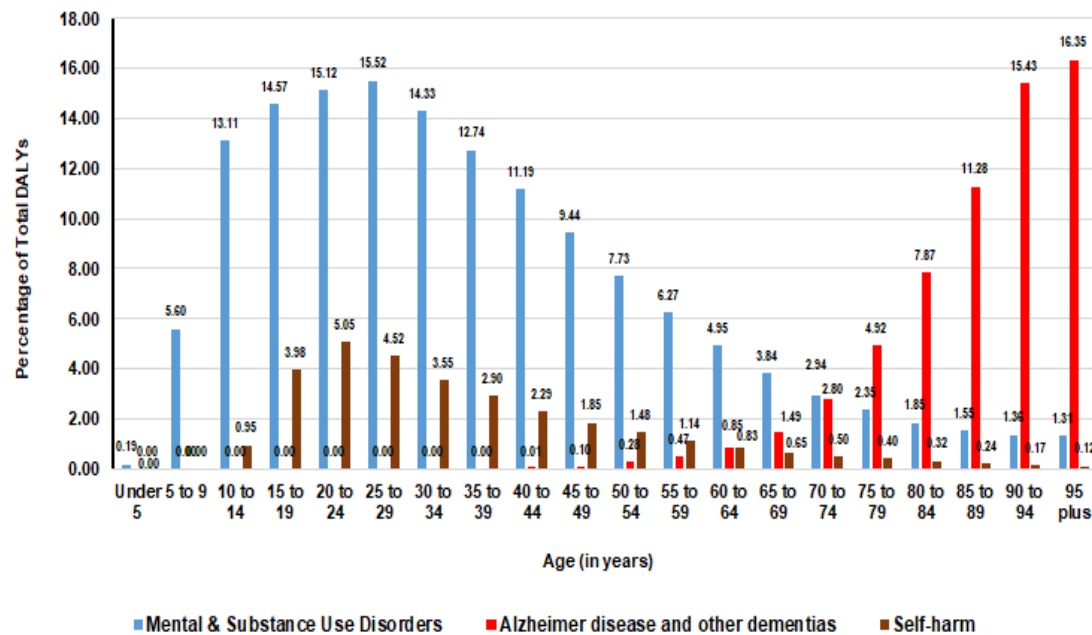
Source: GBD Health Data
Available from:

<https://vizhub.healthdata.org/gbd-compare/>

DALYs= One DALY can be thought of as one lost year of "healthy" life. The sum of these DALYs across the population, or the burden of disease, can be thought of as a measurement of the gap between current health status and an ideal health situation where the entire population lives to an advanced age, free of disease and disability – World Health Organization

Socio-demographic Index (SDI)= A summary measure of a geography's socio-demographic development. It is based on average income per person, educational attainment, and total fertility rate (TFR). - Institute for Health Metrics and Evaluation (IHME)

Figure 3: The Global Burden of Mental & Substance Use Disorders, Alzheimer disease & other dementias and Suicide (Self-harm), (in DALYs) across the life course (2016)



Source: GBD Health Data
Available from:

<https://vizhub.healthdata.org/gbd-compare/>

Figure 4: Torture and incarceration of people with mental disorders



a) View of a rehabilitation center in Indonesia. In 2012 there was no actual housing and many of the residents were confined in a large cage enclosed pavilion without sanitation facilities, men and woman living separated by a wire wall.

Photo credits: Andrea Star Reese



b) Villagers chaining a 32-year-old mentally ill person apparently behaving in a threatening manner, to a tree for eight days, at Balurghat in West Bengal, India.

Photo credits: Press Trust of India (PTI)



c) A view of a psychiatric hospital ward in Albania

Photo credits: Harrie Timmermans/Global Initiative on Psychiatry

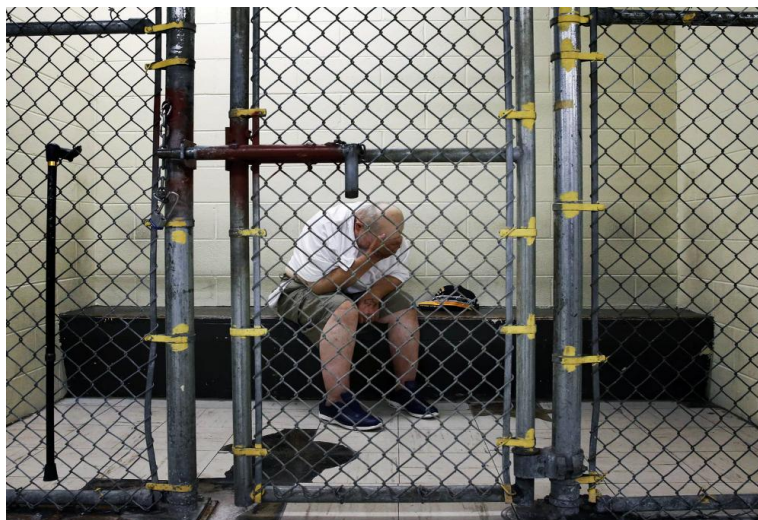


d) A mentally-ill inmate abused by ill-trained U.S. Prison Staff

Source: The Gospel Herald. 2017

Photo credits: Human Rights Watch, 2013

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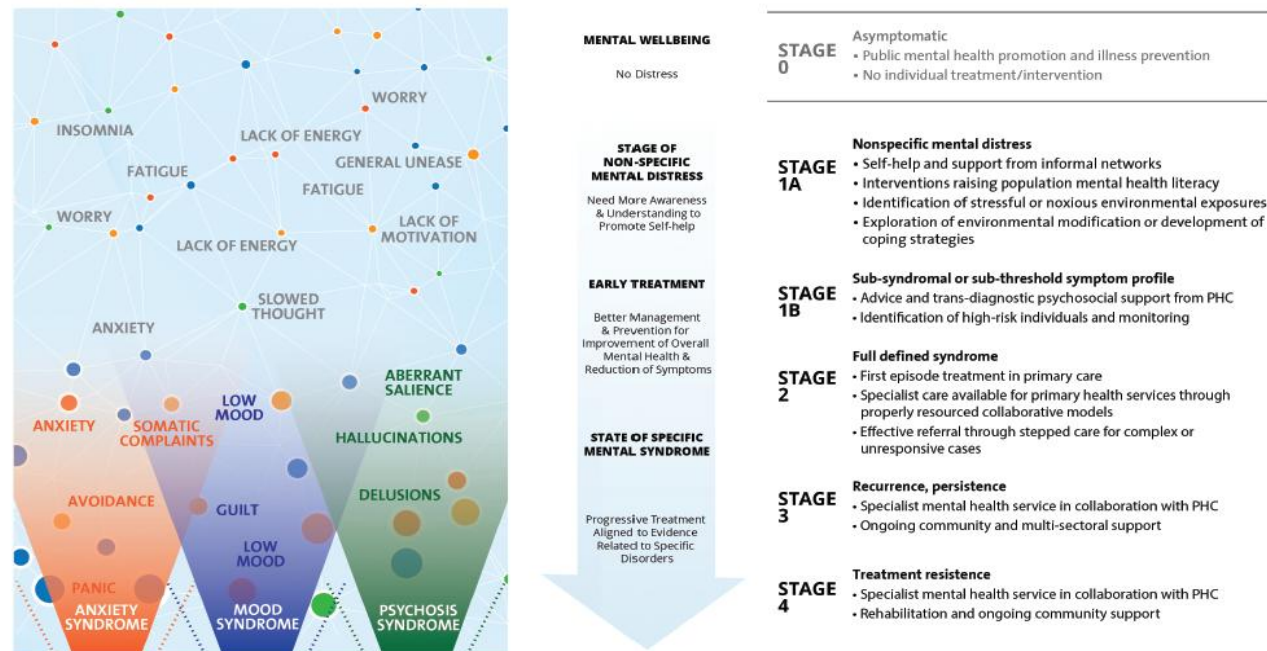
e) Nearly half of the people executed nationwide between 2000-2015 in America had been diagnosed with a mental illness and/or substance use disorder.

*Source: The Guardian 31 Mar 2018
Photograph credits: Charles Rex Arbogast/AP*

Figure 5: A staging approach to the classification and treatment of mental disorders

INCREASING SYMPTOM SPECIFICITY AND SEVERITY

From diffuse, non-specific symptoms causing intermittent mental distress to clear syndromes causing increasingly severe functional impairment



Acknowledgement: Adapted from McGorry P et al, 2014 & McGorry P, van Os J, 2013^{275,276}

Figure 6: Social determinants of Global Mental Health and the Sustainable Development Goals

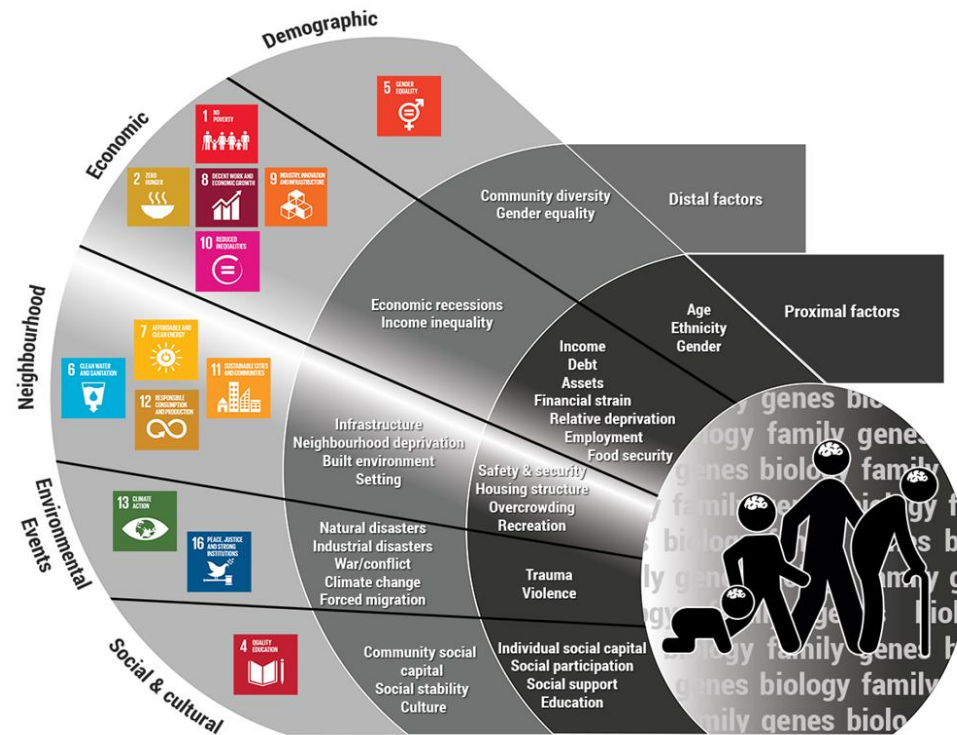
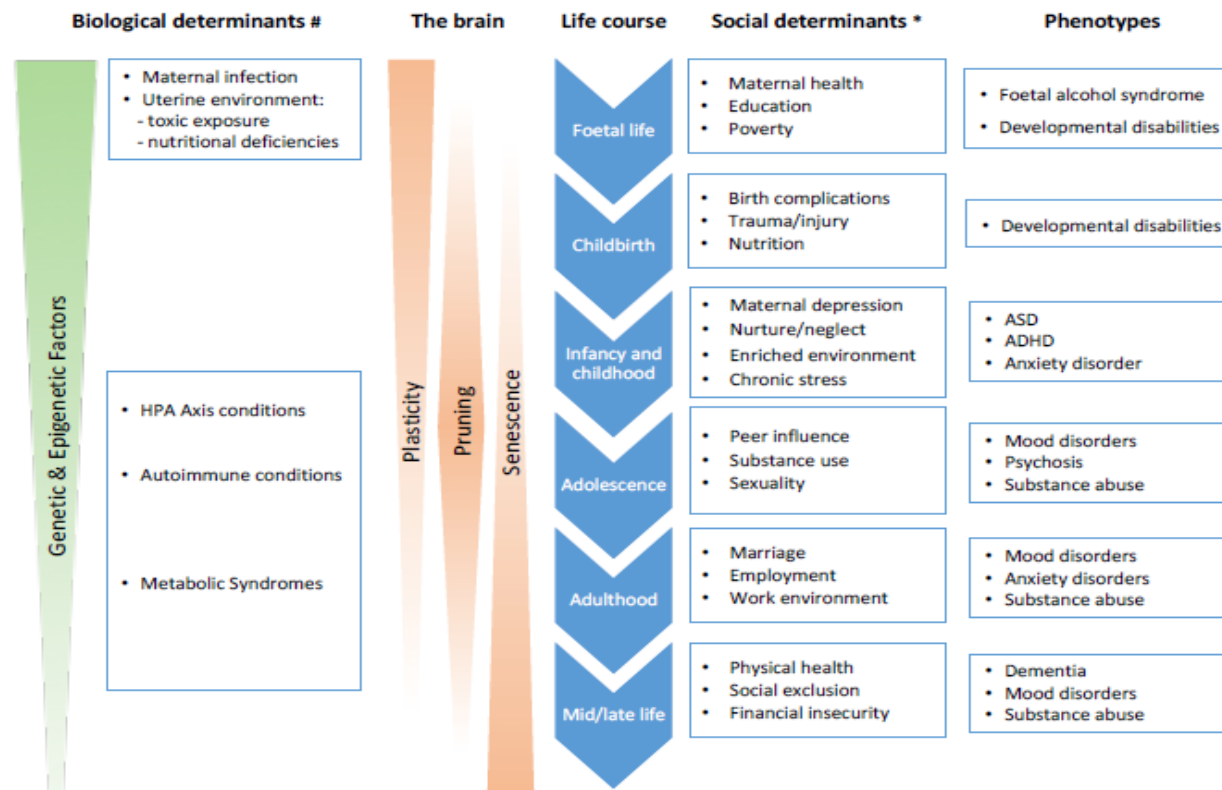


Figure 7: Biological and social determinants of neurodevelopment across the life course



Examples of biological (#) and social (*) determinants that can influence mental health outcomes across the life course. These can operate at different points in life, and can interact, to produce specific phenotypes.

ASD=Autism Spectrum Disorders
ADHD=Attention deficit hyperactivity disorder

Figure 8: Mental health service components relevant to low, medium and high resource settings²⁷⁷

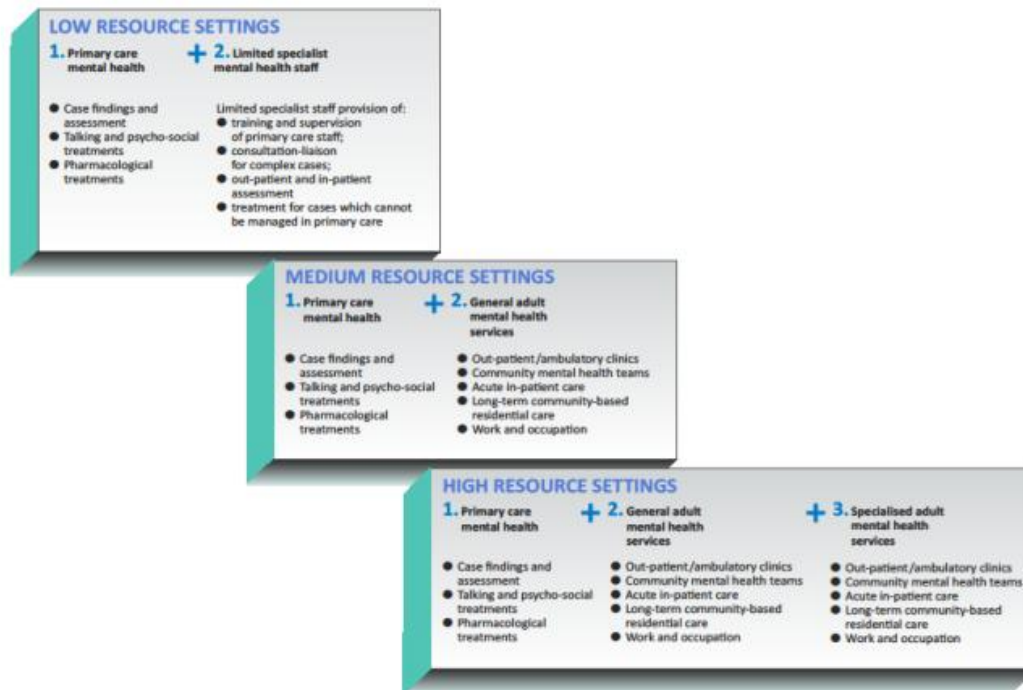


Figure 9: Protective and risk factors in the early life course

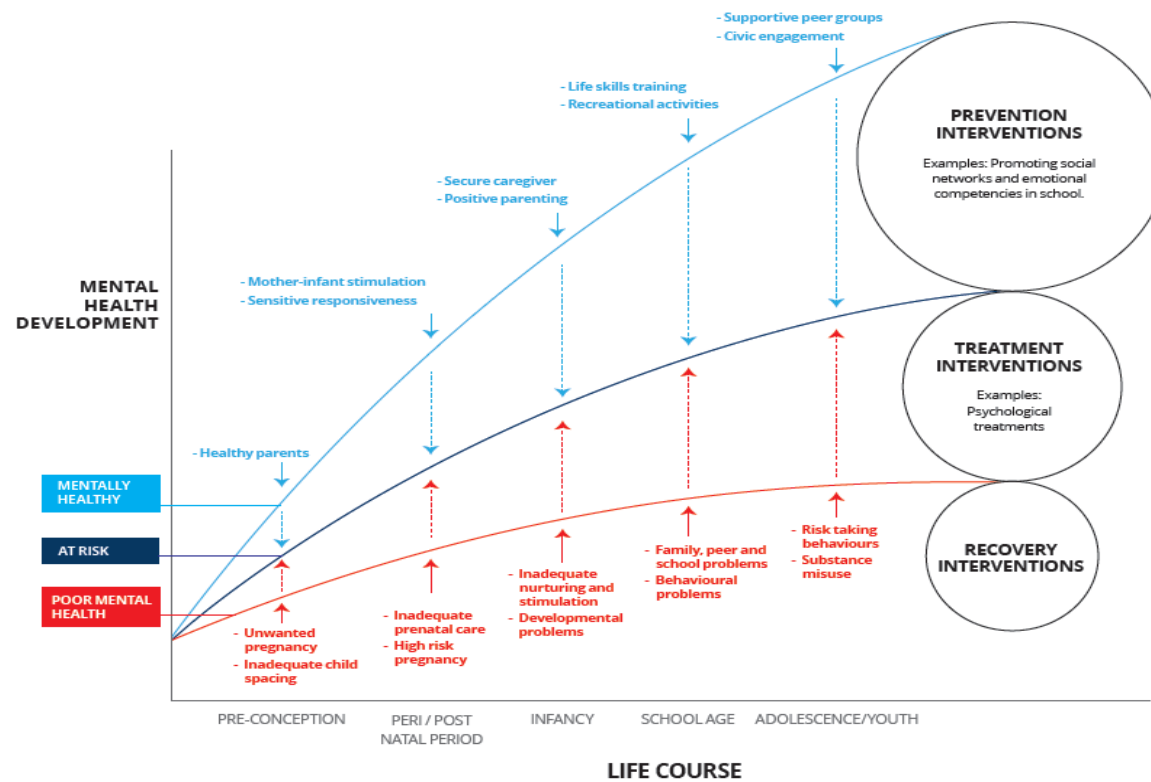


Table 1: Priority actions for scaling up mental health care in low, middle and high resource settings

Action area	Low resource setting	Middle resource setting	High resource setting
Policy/plan/law	<p>Appointment of a senior official or minister and a cross-ministry multi-stakeholder working group at national and subnational levels</p> <p>Inclusion of mental health within the national SDG plans and in UHC</p> <p>Development and implementation of costed and budgeted plans for scaling up mental health care</p> <p>Review and repeal of all laws which are discriminatory against people with mental disorders</p>	<p>All actions listed for low resource setting, if not already completed</p> <p>Development/revision of mental health law and its implementation</p> <p>Development and implementation of strategies for specific areas (e.g. developmental disorders, adolescent mental health, suicide prevention, substance abuse, dementia)</p>	<p>All actions listed for low and middle resource setting, if not already completed</p> <p>Full implementation of the principle of parity in national health plans and in insurance coverage</p>
Primary health care	<p>Training of community and primary health care providers in identification and management of priority mental disorders</p> <p>Regular provision of essential medicines for mental disorders</p> <p>Training of primary health care providers in basic psychosocial interventions</p>	<p>All actions listed for low resource setting, if not already completed</p> <p>Full geographic coverage of delivery of mental health care within primary care</p> <p>Inclusion of mental health indicators within the integrated health information system</p>	<p>All actions listed for low and middle resource setting, if not already completed</p> <p>Establishment of full staged care model of treatment for mental disorders</p>
Secondary health care	<p>Establishment of outpatient clinics for mental health care</p> <p>Establishment of inpatient care within general hospitals</p> <p>Strengthening of support and supervision to primary care health providers</p> <p>Integration of mental health care within other priority programmes (e.g. maternal and child health, HIV)</p>	<p>All actions listed for low resource setting, if not already completed</p> <p>Training of providers in psychosocial interventions</p> <p>Strengthening of referral pathways between primary and secondary care using staged care model</p>	<p>All actions listed for low and middle resource setting, if not already completed</p> <p>Establishment of community outreach teams for severe mental disorders</p>

Tertiary (specialist) health care	Improvement of conditions in mental hospitals	All actions listed for low resource setting, if not already completed	All actions listed for low and middle resource setting, if not already completed
	Shifting of specialist care from mental hospitals to general hospitals	Development of multidisciplinary teams for mental health care	Strengthening of services incorporating the full range of mental health services (e.g. community based long stay facilities, intensive community outreach teams)
	Training and retaining specialists within health care system	Implementation of balanced care model	
	Development of consultation-liaison mental health care	Building capacity for specialized psychosocial interventions	
		Integration of health and social care for mental disorders	
		Establishment of specialty clinics (e.g. child mental health, older adults' services, substance use disorders services, forensic services)	

Table 2: Actions for protecting mental health and wellbeing within the SDG framework

Goals	Actions for protecting mental health
1. End poverty in all its forms everywhere	<ul style="list-style-type: none"> • Directing poverty alleviation interventions to people with mental disorders • Providing welfare payments (basic income grant) for those in extreme poverty • Financial protection to people and families with mental disorders
2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture	<ul style="list-style-type: none"> • Ensuring adequate nutrition to all children and pregnant women for optimum brain development
3. Ensure healthy lives and promote well-being for all at all ages	<ul style="list-style-type: none"> • Integrating mental health promotion, prevention and care across the life-course within the context of national efforts to achieve universal health coverage • Shifting mental health care from institutions to community platforms • Developing and implementing a suicide prevention strategy • Decreasing harmful use of alcohol and psychoactive substances • Identifying and treating substance use disorders
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	<ul style="list-style-type: none"> • Early child stimulation and school readiness programmes • Integrating life skills in school curricula • Identifying and assisting education of children with developmental disabilities early • Tailoring education to the abilities and interests of children • Providing lifelong learning to people with mental disorders to assist recovery • Providing cognitive stimulation and learning to older adults to prevent and manage dementia
5. Achieve gender equality and empower all women and girls	<ul style="list-style-type: none"> • Preventing violence against women and children • Ensure that mental health services are gender-sensitive and specifically geared to address mental health problems in women, such as maternal depression and the consequences of violence • Increasing support for caregivers, who more frequently are women
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	<ul style="list-style-type: none"> • Implementing mental health in the workplace programs • Providing social and occupational interventions and support for people with mental disorders and their families • Assist workforce affected by changing needs of industries, for example due to the growing role of technology
10. Reduce inequality within and among countries	<ul style="list-style-type: none"> • Providing welfare payments (basic income grant) for those in extreme poverty • Reducing stigma and discrimination for people and families with mental disorders • Promote and increase opportunities for social inclusion for persons with mental disorders
11. Make cities and human settlements inclusive, safe, resilient and sustainable	<ul style="list-style-type: none"> • Creating built environments which minimize the social determinants of poor mental health • Safe use of chemicals including pesticides to prevent neurotoxicity and self-harm and suicides
13. Take urgent action to combat climate change and its impacts	<ul style="list-style-type: none"> • Integrating psychosocial support in all humanitarian assistance related to natural disasters and other consequences of climate change • Add the voice of the mental health community to highlight the importance of climate change action, because of its impact on mental health
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	<ul style="list-style-type: none"> • Developing and implementing progressive laws related to mental health and human rights • Prevent the incarceration of persons with mental disorders in institutions (e.g. prisons, child care institutions) • Implementing mental health programs in prisons
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development	<ul style="list-style-type: none"> • Demonstrate the impact of mental health interventions on work of actors in other sectors related to SDG • Develop and sustain a Partnership to transform mental health globally

Table 3: Research priorities for global mental health and sustainable development

Grand Challenges in Global Mental Health Goals ³⁴	Examples of priority mental health research in the SDG framework
Goal A Identify root causes, risk and protective factors	<ul style="list-style-type: none"> • Understand how genetic, neurodevelopmental and social risk and protective factors interact across the life course influencing mental health and mental disorders • Understand the influence of gender on mental health and disorders across the life course • Discover biomarkers for mental health and disorders
Goal B Advance prevention and implementation of early interventions	<ul style="list-style-type: none"> • Understand early stages in the development of mental disorders • Identify novel interventions for prevention and early interventions targeting key determinants across the life course • Identify sensitive and specific tools for early detection and better diagnosis.
Goal C Improve treatments and expand access to care	<ul style="list-style-type: none"> • Identify more effective pharmacological, psychosocial and social treatment interventions including those that are trans-diagnostic • Develop better decision-making algorithms for diagnosis and for person-centred care (precision medicine) • Design, evaluate and compare delivery mechanisms for care ensuring equity and quality • Elaborate and test approaches for supported decision-making for mental health care for people with severe mental disorders
Goal D Raise awareness of the global burden	<ul style="list-style-type: none"> • Develop, evaluate and disseminate effective methods for communicating the burden of mental disorders • Develop, evaluate and disseminate effective methods to increase the demand for mental health care
Goal E Build human resource capacity	<ul style="list-style-type: none"> • Identifying skills needed by non-specialist care providers to deliver mental health care, and feasible and scalable ways for training, supporting and supervising them • Innovations in synergising and integrating services delivered by human and digital modes
Goal F Transform health-system and policy responses	<ul style="list-style-type: none"> • Identify most feasible and effective ways to integrate mental health within universal health coverage in a variety of health systems • Implement a comprehensive monitoring system to assess the determinants of mental health and the inputs and outputs of mental health services • Evaluate the feasibility and impact of innovative financing mechanisms for mental health care e.g. social impact bonds and insurance schemes

*The list of examples is intended to be illustrative rather than exhaustive.

Table 4: Indicators for mental health and sustainable development

Domain/sub-domain	Proposed indicators	Data source and availability
A. Mental health determinants		
A1. Demographic	<ul style="list-style-type: none"> Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex [SDG 5.1.1] 	<ul style="list-style-type: none"> World Bank & OECD; Indicator under development
A2. Economic	<ul style="list-style-type: none"> Proportion of population below the international poverty line (%), by sex, age, employment status and geographical location (urban/rural) [SDG 1.1.1] Unemployment rate, by sex, age and persons with disabilities (%) [SDG 8.5.2] Income inequality (Gini index) 	<ul style="list-style-type: none"> World Bank (134 countries) ILO (169 countries) World Bank (100 countries)
A3. Neighbourhood	<ul style="list-style-type: none"> Proportion of urban population living in slums, informal settlements or inadequate housing [SDG 11.1.1.] Proportion of population that feel safe walking alone around the area they live [SDG 16.1.4] 	<ul style="list-style-type: none"> UN Habitat (at least all LMIC) UNODC (63 countries between 2000-2010)
A4. Environmental*	<ul style="list-style-type: none"> Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months [SDG 16.1.3] Proportion of children aged 1–17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month [SDG 16.2.1] 	<ul style="list-style-type: none"> UNODC (33 countries since 2010; physical and sexual violence only) UNICEF (73 countries)
A5. Social/cultural*	<ul style="list-style-type: none"> Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex [SDG 4.1.1] 	<ul style="list-style-type: none"> UNESCO (79 countries)
B. Mental health systems and services		
B1. Governance	<ul style="list-style-type: none"> Existence of a national policy or plan for mental health that is in line with international and regional human rights instruments (MHAP 1.1) 	<ul style="list-style-type: none"> WHO Mental Health Atlas (158 countries in 2014)
B2. Financing	<ul style="list-style-type: none"> Government expenditure on mental health (US\$) 	<ul style="list-style-type: none"> WHO Mental Health Atlas (41 countries in 2014)
B3. Workforce capacity	<ul style="list-style-type: none"> Mental health workers (rate per 100,000 population) 	<ul style="list-style-type: none"> WHO Mental Health Atlas (78 countries in 2014)
B4. Service availability and provision	<ul style="list-style-type: none"> Total mental health beds (rate per 100,000 population), disaggregated by type of inpatient care facility including mental hospitals Mental health outpatient visits (rate per 100,000 population) 	<ul style="list-style-type: none"> WHO Mental Health Atlas (154 / 80 countries in 2014)
B5. Service access / coverage*	<ul style="list-style-type: none"> Proportion of persons with a severe mental disorder who are using services (MHAP 2.1) 	<ul style="list-style-type: none"> WHO Mental Health Atlas (73 countries in 2014)
B6. Service quality*	<ul style="list-style-type: none"> Proportion of discharged in-patients with severe mental disorder followed-up in the community within one month 	<ul style="list-style-type: none"> WHO Mental Health Atlas (43 countries in 2014)
C. Mental health outcomes and risk protection		
C1. Health, social and economic outcomes*	<ul style="list-style-type: none"> Suicide mortality (rate per 100,000 population) [SDG 3.4.2] Harmful use of alcohol (litres of pure alcohol per capita) [SDG 3.5.2] Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex (%) [SDG 4.2.1] Subjective well-being (ladder score, 0-10) 	<ul style="list-style-type: none"> WHO (171 countries) WHO GISAH (190 countries) UNICEF (58 LMIC) World Happiness Report (153 countries in 2014)
C2. Social and financial risk protection	<ul style="list-style-type: none"> Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities [SDG 1.3.1] 	<ul style="list-style-type: none"> ILO (183 countries) WHO and World Bank (120 countries)

	<ul style="list-style-type: none"> Proportion of the population with large household expenditures on health as a share of total household expenditure or income (%) [SDG 3.8.2] 	by end-2017) ; new mental health data needed
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*Note: Indicators in **red** are already agreed SDG indicators (2016-2030); Indicators in **orange** are those already agreed too in the WHO Mental Health Action Plan (2013-2020)*

**All indicators for these targets should be disaggregated by sex and age wherever possible*

References

1. Beaglehole R, Bonita R. What is global health? *Global Health Action* 2010; **3**(10.3402): 5142.
2. Patel V, Prince M. Global mental health: a new global health field comes of age. *Jama* 2010; **303**(19): 1976-7.
3. The Lancet Global Mental Health Group. Scale up services for mental disorders: a call for action. *The Lancet* 2007; **370**(9594): 1241-52.
4. World Health Organization. Planning and budgeting to deliver services for mental health. WHO Mental Health Policy and Service Guidance Package. Geneva: WHO; 2003.
5. Pathare S, Brazinova A, Levav I. Care gap: A comprehensive measure to quantify unmet needs in mental health. *Epidemiology and psychiatric sciences* 2018: 1-5. doi:10.1017/S2045796018000100.
6. Kleinman A. Anthropology and psychiatry. The role of culture in cross-cultural research on illness. *Br J Psychiatry* 1987; **151**: 447-54.
7. Littlewood R. From categories to contexts: a decade of the 'new cross-cultural psychiatry'. *Br J Psychiatry* 1990; **156**: 308-27.
8. Engel GL. The need for a new medical model: a challenge for biomedicine. *Science* 1977; **196**(4286): 129-36.
9. Kleinman A, Das V, Lock MM. Social Suffering. Berkeley: University of California Press; 1997.
10. Volkow ND, Poznyak V, Saxena S, Gerra G. Drug use disorders: impact of a public health rather than a criminal justice approach. *World Psychiatry* 2017; **16**(2): 213-4.
11. Ferrannini L, Ghio L, Gibertoni D, et al. Thirty Five Years of Community Psychiatry In Italy. *J Nerv Ment Dis* 2014; **202**: 432-9.
12. Lambo TA. A Form of Social Psychiatry in Africa (with special reference to General Features of Psychotherapy with Africans). *World Mental Health* 1961; **13**(4): 190-203.
13. Patel V, Araya R, Chatterjee S, et al. Treatment and prevention of mental disorders in low-income and middle-income countries. *The Lancet* 2007; **370**(9591): 991-1005.
14. Rose D. Collaborative research between users and professionals: peaks and pitfalls. *The Psychiatrist* 2003; **27**(11): 404-6.
15. Davidson L, Lawless MS, Leary F. Concepts of recovery: competing or complementary? *Current opinion in psychiatry* 2005; **18**(6): 664-7.
16. Lund C, Breen A, Flisher AJ, et al. Poverty and common mental disorders in low and middle income countries: A systematic review. *Social Science & Medicine* 2010; **71**(3): 517-28.
17. Institute for Health Metrics and Evaluation (IHME). GBD Research Tools. 2018: [Cited 24 Apr 2018]. Available from: <https://vizhub.healthdata.org/gbd-compare/>.
18. Vigo D, Thornicroft G, Atun R. Estimating the true global burden of mental illness. *The Lancet Psychiatry* 2016; **3**(2): 171-8.
19. Charlson FJ, Baxter AJ, Dua T, Degenhardt L, Whiteford HA, Vos T. Excess mortality from mental, neurological and substance use disorders in the Global Burden of Disease Study 2010. *Epidemiology and psychiatric sciences* 2015; **24**(2): 121-40.
20. World Health Organisation. Mental Health Atlas. Geneva: World Health Organization; 2005.
21. Wang PS, Aguilar-Gaxiola S, Alonso J, et al. Use of mental health services for anxiety, mood and substance disorders in 17 countries in the WHO world mental health surveys. *The Lancet* 2007; **370**(9590): 841-50.
22. Patel V, Kleinman A, Saraceno B. Protecting the human rights of people with mental disorders: a call to action for global mental health In: Dudley M, Silove D, Gale F, eds. Mental Health & Human Rights. Oxford. Oxford University Press; 2012.
23. Gilbert BJ, Patel V, Farmer PE, Lu C. Assessing development assistance for mental health in developing countries: 2007-2013. *PLoS medicine* 2015; **12**(6): e1001834.

24. World Health Organization. mhGAP: Mental Health Gap Action Programme: scaling up care for mental, neurological and substance use disorders. Geneva: WHO Press, World Health Organization; 2008.
25. World Health Organization. Mental Health Atlas 2014. Geneva: WHO Press, World Health Organization; 2015.
26. World Health Organization. WHO QualityRights Tool Kit-Assessing and improving quality and human rights in mental health and social care facilities. Geneva: World Health Organization, 2012.
27. World Health Organization. Mental Health Action Plan 2013-2020. Geneva: WHO Press, 2013.
28. Patel V, Chisholm D, Dua T, Laxminarayan R, Medina-Mora ME, editors. Mental, Neurological, and Substance Use Disorders. Disease Control Priorities. 3 ed. Washington, DC. The World Bank; 2015.
29. Mateus MD, Mari JJ, Delgado PGG, et al. The mental health system in Brazil: Policies and future challenges. *International Journal of Mental Health Systems* 2008; **2**: 12.
30. Patel V. Legislating the Right to Care for Mental Illness. *Economic & Political Weekly* 2013; **48**(9).
31. Patel V, Xiao S, Chen H, et al. The magnitude of and health system responses to the mental health treatment gap in adults in India and China. *The Lancet* 2016; **388**(10063): 3074-84.
32. Clark DM, Layard R, Smithies R, Richards DA, Suckling R, Wright B. Improving access to psychological therapy: Initial evaluation of two UK demonstration sites. *Behaviour research and therapy* 2009; **47**(11): 910-20.
33. World Health Organisation. Building Back Better. Sustainable mental health care after emergencies. Geneva: World Health Organization; 2013.
34. Collins PY, Patel V, Joestl SS, March D, Insel TR, Daar AS. Grand challenges in global mental health: A consortium of researchers, advocates and clinicians announces here research priorities for improving the lives of people with mental illness around the world, and calls for urgent action and investment. *Nature* 2011; **475**(7354): 27-30.
35. Liu Z, Huang Y, Lv P, et al. The China Mental Health Survey: II. Design and field procedures. *Social psychiatry and psychiatric epidemiology* 2016; **51**(11): 1547-57.
36. Gururaj G, Varghese M, Benegal V, et al. National Mental Health Survey of India, 2015-16: Prevalence, patterns and outcomes. Bengaluru: National Institute of Mental Health and Neuro Sciences (NIMHANS); 2016.
37. Thornicroft G, Chatterji S, Evans-Lacko S, et al. Undertreatment of people with major depressive disorder in 21 countries. *Br J Psychiatry* 2017; **210**(2): 119-24. .
38. Lund C. Mental health and human rights in South Africa: the hidden humanitarian crisis. *South African Journal on Human Rights* 2016; **32**(3): 403-5.
39. Charlson F, Dieleman J, Singh L, Whiteford H. Donor Financing for Global Mental Health, 1995-2015: An Assessment of Trends, Channels, and Alignment with the Disease Burden. *PloS ONE* 2012; **1**(e0169384).
40. Lu C, Li Z, Patel V. Global child and adolescent mental health: The orphan of development assistance for health. *PLoS medicine* 2018; **15**(3): e1002524.
41. Bloom DE, Cafiero ET, Jané-Llopis E, et al. The Global Economic Burden of Non-communicable Diseases. Geneva: World Economic Forum; 2011.
42. Leucht S, Hierl S, Kissling W, Dold M, Davis JM. Putting the efficacy of psychiatric and general medicine medication into perspective: review of meta-analyses. *Br J Psychiatry* 2012; **200**(2): 97-106.
43. Jorm AF, Patten SB, Brugha TS, Mojtabai R. Has increased provision of treatment reduced the prevalence of common mental disorders? Review of the evidence from four countries. *World Psychiatry* 2017; **16**(1): 90-9.
44. Berry HL, Waite TD, Dear KBG, Capon AG, Murray V. The case for systems thinking about climate change and mental health. *Nature Climate Change* 2018; **8**(4): 282-90.

45. Patel V, Burns JK, Dhingra M, Tarver L, Kohrt BA, Lund C. Income inequality and depression: a systematic review and meta-analysis of the association and a scoping review of mechanisms. *World Psychiatry* 2018; **17**(1): 76-89.
46. Summerfield D. Afterword: against "global mental health". *Transcultural psychiatry* 2012; **49**(3-4): 519-30.
47. Freeman MC, Kolappa K, de Almeida JMC, et al. Reversing hard won victories in the name of human rights: a critique of the General Comment on Article 12 of the UN Convention on the Rights of Persons with Disabilities. *The Lancet Psychiatry* 2015; **2**(9): 844-50.
48. World Health Organization. Time to deliver: report of the WHO Independent High-level Commission on Noncommunicable Diseases. Geneva: WHO; 2018. Licence: CC BY-NC-SA 3.0 IGO.
49. Flabbi L, Gatti, Roberta V. A primer on human capital (English). Policy Research working paper; no. WPS 8309. Washington, D.C: World Bank Group; 2018.
50. Keyes CL, Dhingra SS, Simoes EJ. Change in level of positive mental health as a predictor of future risk of mental illness. *American journal of public health* 2010; **100**(12): 2366-71.
51. Delude CM. Deep phenotyping: The details of disease. *Nature* 2015; **527**(7576): S14-S5.
52. Galderisi S, Heinz A, Kastrup M, Beezhold J, Sartorius N. Toward a new definition of mental health. *World Psychiatry* 2015; **14**(2): 231-3.
53. Helliwell J, Layard R, Sachs J. World Happiness Report 2018. New York: Sustainable Development Solutions Network; 2018.
54. ONS. Measuring National Well-Being: Office for National Statistics, 2014.
55. Sen A. Development as freedom. Oxford: Oxford University Press; 1999.
56. Wilkinson RG, Pickett K. The spirit level: Why more equal societies almost always do better. London: Allen Lane; 2009.
57. WHO. WHO Commission on Social determinants of health: WHO, 2010.
58. Clark LA, Cuthbert B, Lewis-Fernandez R, Narrow WE, Reed GM. Three Approaches to Understanding and Classifying Mental Disorder: ICD-11, DSM-5, and the National Institute of Mental Health's Research Domain Criteria (RDoC). *Psychological science in the public interest : a journal of the American Psychological Society* 2017; **18**(2): 72-145.
59. Kendler KS. DSM issues: incorporation of biological tests, avoidance of reification, and an approach to the "box canyon problem". *The American journal of psychiatry* 2014; **171**(12): 1248-50.
60. Gandal MJ, Haney JR, Parikshak NN, et al. Shared molecular neuropathology across major psychiatric disorders parallels polygenic overlap. *Science (New York, NY)* 2018; **359**(6376): 693-7.
61. Kendler KS. What psychiatric genetics has taught us about the nature of psychiatric illness and what is left to learn. *Molecular psychiatry* 2013; **18**(10): 1058-66.
62. St Pourcain B, Robinson EB, Anttila V, et al. ASD and schizophrenia show distinct developmental profiles in common genetic overlap with population-based social communication difficulties. *Molecular psychiatry* 2018; **23**(2): 263-70.
63. National Institute for Mental Health (NIMH) [Internet]. Research Domain Criteria. NIMH; 2017.
64. Felger JC, Lotrich FE. Inflammatory cytokines in depression: neurobiological mechanisms and therapeutic implications. *Neuroscience* 2013; **246**: 199-229.
65. Bolton P, Tang A. An alternative approach to cross-cultural function assessment. *Social psychiatry and psychiatric epidemiology* 2002; **37**(11): 537-43.
66. McGorry P, van Os J. Redeeming diagnosis in psychiatry: timing versus specificity. *The Lancet* 2013; **381**(9863): 343-5.
67. Berk M, Post R, Ratheesh A, et al. Staging in bipolar disorder: from theoretical framework to clinical utility. *World Psychiatry* 2017; **16**(3): 236-44.
68. Fusar-Poli P, McGorry PD, Kane JM. Improving outcomes of first-episode psychosis: an overview. *World Psychiatry* 2017; **16**(3): 251-65.
69. McGorry PD. Early intervention in psychosis: obvious, effective, overdue. *J Nerv Ment Dis* 2015; **203**(5): 310-8.

70. Das-Munshi J, Goldberg D, Bebbington PE, et al. Public health significance of mixed anxiety and depression: beyond current classification. *Br J Psychiatry* 2008; **192**(3): 171-7.
71. Knowledge Translation Unit, University of Cape Town Lung Institute, British Medical Journal. Practical Approach to Care Kit (PACK): BMJ Publishing Group; 2018.
72. Bryant RA, Schafer A, Dawson KS, et al. Effectiveness of a brief behavioural intervention on psychological distress among women with a history of gender-based violence in urban Kenya: A randomised clinical trial. *PLoS Med*, 2017; **14**(8): e1002371.
73. Jacob KS, Patel V. Classification of mental disorders: a global mental health perspective. *Lancet (London, England)* 2014; **383**(9926): 1433-5.
74. Patel V. Why mental health matters to global health. *Transcultural psychiatry* 2014; **51**(6): 777-89.
75. Haroz EE, Ritchey M, Bass JK, et al. How is depression experienced around the world? A systematic review of qualitative literature. *Soc Sci Med* 2017; **183**: 151-62.
76. Singla DR, Kohrt BA, Murray LK, Anand A, Chorpita BF, Patel V. Psychological Treatments for the World: Lessons from Low- and Middle-Income Countries. *Annu Rev Clin Psychol* 2017; **13**: 149-81.
77. Bolton P, Bass J, Neugebauer R, et al. Group interpersonal psychotherapy for depression in rural Uganda: a randomized controlled trial. *Jama* 2003; **289**(23): 3117-24.
78. Leamy M, Bird V, Le Boutillier C, Williams J, Slade M. Conceptual framework for personal recovery in mental health: systematic review and narrative synthesis. *Br J Psychiatry* 2011; **199**(6): 445-52.
79. Mark L, Hatzenbuehler JC, G PaB. Link, Stigma as a Fundamental Cause of Population Health Inequalities. *American journal of public health* 2013; **103**(5): 813-21.
80. Pathare S, Funk M. QualityRights in Gujarat IN PRESS. 2017.
81. WHO and Calouste Gulbenkian Foundation. Social determinants of mental health. Geneva: WHO; 2014.
82. Lund C, Brooke-Sumner C, Baingana F, et al. Social determinants of mental disorders and the Sustainable Development Goals: a systematic review of reviews. *The lancet Psychiatry* 2018; **5**(4): 357-69.
83. Whiteford HA, Degenhardt L, Rehm J, et al. Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *Lancet (London, England)* 2013; **382**(9904): 1575-86.
84. Chandra PS, Satyanarayana VA. Gender disadvantage and common mental disorders in women. *International Review of Psychiatry* 2010; **22**(5): 513-24.
85. Veling W. Ethnic minority position and risk for psychotic disorders. *Current opinion in psychiatry* 2013; **26**(2): 166-71.
86. Yoshikawa H, Aber JL, Beardslee WR. The effects of poverty on the mental, emotional, and behavioral health of children and youth: implications for prevention. *The American psychologist* 2012; **67**(4): 272-84.
87. Gilman SE. Childhood socioeconomic status, life course pathways and adult mental health. *Int J Epidemiol* 2002; **31**(2): 403-4.
88. Kwok W. Is there evidence that social class at birth increases risk of psychosis? A systematic review. *The International journal of social psychiatry* 2014; **60**(8): 801-8.
89. Dohrenwend BP, Levav I, Shrout PE, et al. Socioeconomic status and psychiatric disorders: the causation-selection issue. *Science (New York, NY)* 1992; **255**(5047): 946-52.
90. Savell E, Fooks G, Gilmore AB. How does the alcohol industry attempt to influence marketing regulations? A systematic review. *Addiction (Abingdon, England)* 2016; **111**(1): 18-32.
91. Goldmann E, Galea S. Mental health consequences of disasters. *Annual review of public health* 2014; **35**: 169-83.

92. Kertes DA, Bhatt SS, Kamin HS, Hughes DA, Rodney NC, Mulligan CJ. BDNF methylation in mothers and newborns is associated with maternal exposure to war trauma. *Clin Epigenetics* 2017; **9**: 68.
93. E. ClipSE Collaborative Members, Brayne C, Ince PG, et al. Education, the brain and dementia: neuroprotection or compensation? *Brain* 2010; **133**(Pt 8): 2210-6.
94. Esch P, Bocquet V, Pull C, et al. The downward spiral of mental disorders and educational attainment: A systematic review on early school leaving. *BMC Psychiatry* 2014; **14**.
95. Ehsan AM, De Silva MJ. Social capital and common mental disorder: a systematic review. *Journal of epidemiology and community health* 2015; **69**(10): 1021-8.
96. Bhugra D, Becker MA. Migration, cultural bereavement and cultural identity. *World Psychiatry* 2005; **4**(1): 18-24.
97. Kessler RC, McLaughlin KA, Green JG, et al. Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. *Br J Psychiatry* 2010; **197**(5): 378-85.
98. Singer M, Bulled N, Ostrach B, Mendenhall E. Syndemics and the biosocial conception of health. *Lancet (London, England)* 2017; **389**(10072): 941-50.
99. Kleinman A, Das V, Lock MM, editors. Social suffering. Berkeley: University of California Press; 2003.
100. McCarroll SA, Feng G, Hyman SE. Genome-scale neurogenetics: methodology and meaning. *Nature neuroscience* 2014; **17**(6): 756-63.
101. Sullivan PF, Daly MJ, O'Donovan M. Genetic architectures of psychiatric disorders: the emerging picture and its implications. *Nature reviews Genetics* 2012; **13**(8): 537-51.
102. Breen G, Li Q, Roth BL, et al. Translating genome-wide association findings into new therapeutics for psychiatry. *Nature neuroscience* 2016; **19**(11): 1392-6.
103. Sonuga-Barke EJS, Kennedy M, Kumsta R, et al. Child-to-adult neurodevelopmental and mental health trajectories after early life deprivation: the young adult follow-up of the longitudinal English and Romanian Adoptees study. *Lancet (London, England)* 2017; **389**(10078): 1539-48.
104. McKinney B, Ding Y, Lewis DA, Sweet RA. DNA methylation as a putative mechanism for reduced dendritic spine density in the superior temporal gyrus of subjects with schizophrenia. *Translational psychiatry* 2017; **7**(2): e1032.
105. Slavich GM, Irwin MR. From stress to inflammation and major depressive disorder: a social signal transduction theory of depression. *Psychological bulletin* 2014; **140**(3): 774-815.
106. Felger JC, Miller AH. Neurotherapeutic implications of brain-immune interactions. *Neuropsychopharmacology* 2014; **39**(1): 242-3.
107. Buitenveg JI, Murre JM, Ridderinkhof KR. Brain training in progress: a review of trainability in healthy seniors. *Frontiers in human neuroscience* 2012; **6**: 183.
108. Hart H, Rubia K. Neuroimaging of child abuse: a critical review. *Front Hum Neurosci* 2012; **6**(52).
109. Moffitt TE. Genetic and environmental influences on antisocial behaviors: evidence from behavioral-genetic research. *Advances in genetics* 2005; **55**: 41-104.
110. Stein DJ, Lund C, Nesse RM. Classification systems in psychiatry: diagnosis and global mental health in the era of DSM-5 and ICD-11. *Current opinion in psychiatry* 2013; **26**(5): 493-7.
111. Jain S, Orr DM. Ethnographic perspectives on global mental health. *Transcultural psychiatry* 2016; **53**(6): 685-95.
112. Pūras D. Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. United Nations: Office of the High Commissioner of the United Nations. 2017 [cited 19 April 2017]. Available from: <http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=21480&LangID=E>
113. UNICEF. Children and Young People with Disabilities: Fact Sheet. New York: United Nations Children's Fund, May 2013.
114. United Nations. Women's Rights are Human Rights. Office of the High Commissioner, United Nations. New York and Geneva: United Nations Publication, 2014.

115. McDonald A, Buswell M, Khush S, Brophy M. Invisible Wounds: The impact of six years of war on the mental health of Syria's children. www.savethechildren.net: Save the Children; 2017.
116. United Nations. Convention of the Rights of Persons with Disabilities: United Nations Human Rights, Office of the High Commissioner for Human Rights, United Nations, 2006.
117. Drew N, Funk M, Tang S, al. e. Human rights violations of people with mental and psychosocial disabilities: an unresolved global crisis. *The Lancet* 2011; **378**(9803): 1664-75.
118. Batha E. Mentally ill tied to trees and left to die in Somalia. 2013 [cited 24 April, 2017]. Available from: <http://news.trust.org/item/20131007132825-oupwe/>.
119. Human Rights Watch. "Like a Death Sentence": Abuses against Persons with Mental Disabilities in Ghana. USA: Human Rights Watch, 2012.
120. World Health Organization and the Gulbenkian Global Mental Health Platform. Promoting rights and community living for children with psychosocial disabilities. Geneva: World Health Organization,; 2015.
121. Pan African Network of People with Psychosocial Disabilities (PANUSP). The Cape Town Declaration (16th October 2011). *Disability and the Global South* 2014; **1**(2): 385-6.
122. Biggeri M, Deepak S, Mauro V, al. e. Impact of CBR: Impact of Community-Based Rehabilitation programme in Mandya district (Karnataka, India). Bologna, Italy: Italian Association Amici di Raoul Follereau (AIFO), 2012.
123. Walker ER, McGee RE, Druss BG. Mortality in mental disorders and global disease burden implications: a systematic review and meta-analysis. *JAMA Psychiatry* 2015; **72**(4): 334-41.
124. Mental Disability Advocacy Centre. Legal Capacity in Europe. Budapest, Hungary, 2013.
125. Perlin ML. 'Striking for the Guardians and Protectors of the Mind': The Convention on the Rights of Persons with Mental Disabilities and the Future of Guardianship Law. New York: New York Law School 2013.
126. World Medical Association. Comments from the World Medical Association on Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health (A/HRC/35/21). Ferney-Voltaire, 2017.
127. Patel V, Chisholm D, Parikh R, et al. Addressing the burden of mental, neurological, and substance use disorders: key messages from Disease Control Priorities, 3rd edition. *The Lancet* 2016; **387**(10028): 1672-85.
128. World Health Organization. mhGAP Intervention Guide-for mental, neurological and substance use disorders in non-specialized health settings: WHO Press, World Health Organization; 2016.
129. van Ginneken N, Tharyan P, Lewin S, Rao GR, Romeo R, Patel V. Non-specialist health worker interventions for mental health care in low- and middle- income countries. Cochrane Collaboration. 2013. *Cochrane Review* 2013.
130. Cuijpers P, Sijbrandij M, Koole SL, Andersson G, Beekman AT, Reynolds CF, 3rd. The efficacy of psychotherapy and pharmacotherapy in treating depressive and anxiety disorders: a meta-analysis of direct comparisons. *World Psychiatry* 2013; **12**(2): 137-48.
131. Becker DR, Bond GR, Drake RE. Individual placement and support: the evidence-based practice of supported employment. In: Thornicroft G, Szmukler GI, Mueser KT, Drake RE, eds. Oxford Textbook of Community Mental Health. Oxford: Oxford University Press; 2011: 204-17.
132. Purgato M, Gross AL, Betancourt T, et al. Focused psychosocial interventions for children in low-resource humanitarian settings: a systematic review and individual participant data meta-analysis. *The Lancet Global Health* 2018; **6**(4): e390-e400.
133. Asher L, Patel V, De Silva MJ. Community-based psychosocial interventions for people with schizophrenia in low and middle-income countries: systematic review and meta-analysis. *BMC Psychiatry* 2017; **17**(1): 355.
134. Hoeft TJ, Fortney JC, Patel V, Unutzer J. Task-Sharing Approaches to Improve Mental Health Care in Rural and Other Low-Resource Settings: A Systematic Review. *J Rural Health* 2017.

135. Barry MM, Clarke AM, Jenkins R, Patel V. A systematic review of the effectiveness of mental health promotion interventions for young people in low and middle income countries. *BMC Public Health* 2013; **13**(1): 835.
136. Bernstein A, Chorpita BF, Daleiden EL, Ebesutani CK, Rosenblatt A. Building an evidence-informed service array: Considering evidence-based programs as well as their practice elements. *J Consult Clin Psychol* 2015; **83**(6): 1085-96.
137. Murray LK, Dorsey S, Haroz E, et al. A Common Elements Treatment Approach for Adult Mental Health Problems in Low- and Middle-Income Countries. *Cogn Behav Pract* 2014; **21**(2): 111-23.
138. Marchette LK, Weisz JR. Practitioner Review: Empirical evolution of youth psychotherapy toward transdiagnostic approaches. *Journal of child psychology and psychiatry, and allied disciplines* 2017; **58**(9): 970-84.
139. Naslund JA, Aschbrenner KA, Araya R, et al. Digital technology for treating and preventing mental disorders in low-income and middle-income countries: a narrative review of the literature. *The lancet Psychiatry* 2017.
140. Thornicroft G, Mehta N, Clement S, et al. Evidence for effective interventions to reduce mental-health-related stigma and discrimination. *The Lancet* 2016; **387**(10023): 1123-32.
141. Hamdani SU, Minhas FA, Iqbal Z, Rahman A. Model for Service Delivery for Developmental Disorders in Low-Income Countries. *Pediatrics* 2015; **136**(6): 1166-72.
142. Alvarez-Jimenez M, Gleeson J, Bendall S, et al. SU125. Momentum: A Novel Online Social Media, Mindfulness, and Strengths-Based Intervention to Promote Functional Recovery in Ultra High Risk (UHR) Patients. *Schizophrenia Bulletin* 2017; **43**(suppl_1): S206-S7.
143. Unutzer J, Choi Y, Cook IA, Oishi S. A web-based data management system to improve care for depression in a multicenter clinical trial. *Psychiatr Serv* 2002; **53**(6): 671-3, 8.
144. Thornicroft G, Tansella M. The balanced care model for global mental health. *Psychological Medicine* 2013; **43**(4): 849-63.
145. Nadkarni A, Hanlon C, Bhatia U, et al. The management of adult psychiatric emergencies in low-income and middle-income countries: a systematic review. *The lancet Psychiatry* 2015; **2**(6): 540-7.
146. Power P, McGorry P. Early interventions for people with psychotic disorders. In: Thornicroft G, Szmukler GI, Mueser KT, Drake RE (editors). *Oxford Textbook of Community Mental Health*. Oxford: Oxford University Press; 2011.
147. Clement S, Schauman O, Graham T, et al. What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological medicine* 2015; **45**(1): 11-27.
148. Alonso J, Liu Z, Evans-Lacko S, et al. Treatment gap for anxiety disorders is global: Results of the World Mental Health Surveys in 21 countries. *Depression and anxiety* 2018; **35**(3): 195-208.
149. Degenhardt L, Glantz M, Evans-Lacko S, et al. Estimating treatment coverage for people with substance use disorders: an analysis of data from the World Mental Health Surveys. *World Psychiatry* 2017; **16**(3): 299-307.
150. Henderson C, Robinson E, Evans-Lacko S, Thornicroft G. Relationships between anti-stigma programme awareness, disclosure comfort and intended help-seeking regarding a mental health problem. *Br J Psychiatry* 2017; **211**(5): 316-22.
151. Jordans MJ, Kohrt BA, Luitel NP, Lund C, Komproe IH. Proactive community case-finding to facilitate treatment seeking for mental disorders, Nepal. . *Bulletin of the World Health Organization* 2017; **95**(7): 531-6.
152. Shidhaye R, Lyngdoh T, Murhar V, Samudre S, Krafft T. Predictors, help-seeking behaviour and treatment coverage for depression in adults in Sehore district, India. *BJPsych Open* 2017; **3**(5): 212-22.

153. Maulik PK, Devarapalli S, Kallakuri S, et al. Evaluation of an anti-stigma campaign related to common mental disorders in rural India: a mixed methods approach. *Psychological Medicine* 2017; **47**(3): 565-75.
154. Thornicroft G, Henderson C. Joint Decision Making and Reduced Need for Compulsory Psychiatric Admission. *JAMA Psychiatry* 2016; **73**(7): 647-8.
155. Henderson C, Brohan E, Clement S, et al. A decision aid to assist decisions on disclosure of mental health status to an employer: protocol for the CORAL exploratory randomised controlled trial. *BMC Psychiatry* 2012; **12**: 133.
156. Erskine HE, Moffitt TE, Copeland WE, et al. A heavy burden on young minds: the global burden of mental and substance use disorders in children and youth. *Psychol Med* 2015; **45**(7): 1551-63.
157. Patel V. Acting early: the key to preventing mental health problems. *Journal of the Royal Society of Medicine* 2018; DOI: **10.1177/0141076818764995**.
158. McGorry PD, Goldstone SD, Parker AG, Rickwood DJ, Hickie IB. Cultures for mental health care of young people: an Australian blueprint for reform. *The lancet Psychiatry* 2014; **1**(7): 559-68.
159. Richter LM, Daelmans B, Lombardi J, et al. Investing in the foundation of sustainable development: pathways to scale up for early childhood development. *The Lancet* 2017; **389**(10064): 103-18.
160. Britto PR, Lye SJ, Proulx K, et al. Nurturing care: promoting early childhood development. *The Lancet* 2017; **389**(10064): 91-102.
161. Thomas R, Zimmer-Gembeck MJ. Accumulating evidence for parent-child interaction therapy in the prevention of child maltreatment. *Child development* 2011; **82**(1): 177-92.
162. Jordans MJD, Pigott H, Tol WA. Interventions for Children Affected by Armed Conflict: a Systematic Review of Mental Health and Psychosocial Support in Low- and Middle-Income Countries. *Current psychiatry reports* 2016; **18**(1): 9.
163. Goodman SH, Rouse MH, Connell AM, Broth MR, Hall CM, Heyward D. Maternal depression and child psychopathology: a meta-analytic review. *Clinical child and family psychology review* 2011; **14**(1): 1-27.
164. Kieling C, Baker-Henningham H, Belfer M, et al. Child and adolescent mental health worldwide: evidence for action. *The Lancet* 2011; **378**(9801): 1515-25.
165. Gertler P, Heckman J, Pinto R, et al. Labor market returns to an early childhood stimulation intervention in Jamaica. *Science* 2014; **344**(6187): 998-1001.
166. Patel V, Chisholm D, Parikh R, et al. Global Priorities for Addressing the Burden of Mental, Neurological, and Substance Use Disorders. In: Patel V, Chisholm D, Dua T, Laxminarayan R, Medina-Mora ME, eds. *Mental, Neurological, and Substance Use Disorders: Disease Control Priorities, Third Edition (Volume 4)*. Washington (DC); 2016.
167. Scott J, Mihalopoulos C, Erskine H, Roberts J, Rahman A. Childhood mental and development disorders. Mental, Neurological and Substance Use Disorders: Disease Control Priorities (DCP3). Seattle: Disease Control Priorities (DCP3); 2015.
168. Bowers B, Kuipers P, Dorsett P. Disability, CBR and Inclusive Development. 2015; **26**(No.2): doi 10.5463/DCID.v26i2.425.
169. Rahman A, Divan G, Hamdani SU, et al. Effectiveness of the parent-mediated intervention for children with autism spectrum disorder in south Asia in India and Pakistan (PASS): a randomised controlled trial. *The lancet Psychiatry* 2016; **3**(2): 128-36.
170. Patton GC, Sawyer SM, Santelli JS, et al. Our future: a Lancet commission on adolescent health and wellbeing. *The Lancet* 2016; **387**(10036): 2423-78.
171. Shackleton N, Jamal F, Viner RM, Dickson K, Patton G, Bonell C. School-Based Interventions Going Beyond Health Education to Promote Adolescent Health: Systematic Review of Reviews. *J Adolesc Health* 2016; **58**(4): 382-96.
172. Wells J, Barlow J, Stewart-Brown S. A systematic review of universal approaches to mental health promotion in schools. *Health Education* 2003; **103**(4): 197-220.

173. Knapp M, McDaid D, Parsonage M. Mental Health Promotion and Prevention: The economic case. London: Personal Social Services Research Unit, London School of Economics and Political Science, 2011.
174. World Health Organization. Preventing suicide: A global imperative. Geneva: WHO, 2014.
175. Patel V, Flisher AJ, Hetrick S, McGorry P. Mental health of young people: a global public-health challenge. *The Lancet* 2007; **369**(9569): 1302-13.
176. Valero de Vicente M, Ballester Brage L, Orte Socias MC, Amer Fernandez JA. Meta-analysis of family-based selective prevention programs for drug consumption in adolescence. *Psicothema* 2017; **29**(3): 299-305.
177. Mendelson T, Eaton WW. Recent advances in the prevention of mental disorders. *Social psychiatry and psychiatric epidemiology* 2018; **53**(4): 325-39.
178. Milligan-Saville JS, Tan L, Gayed A, et al. Workplace mental health training for managers and its effect on sick leave in employees: a cluster randomised controlled trial. *The Lancet Psychiatry* 2017; **4**(11): 850-8.
179. Probst TM, Gold D, Caborn J. A preliminary evaluation of SOLVE: addressing psychosocial problems at work. *Journal of occupational health psychology* 2008; **13**(1): 32-42.
180. World Health Organization. Global Strategy to reduce the harmful use of alcohol. Geneva: WHO; 2010.
181. Haushofer J, Shapiro J. The short-term impact of unconditional cash transfers to the poor: Experimental evidence from Kenya. *The Quarterly Journal of Economics* 2016; **131**(4): 1973-2042.
182. Ssewamala F, Han CK, Neilands TB. Asset ownership and health and mental health functioning among AIDS-orphaned adolescents: findings from a randomised clinical trial in rural Uganda. *Social Science & Medicine* 2009; **69**: 191-8.
183. Lund C, De Silva M, Plagerson S, et al. Poverty and mental disorders: breaking the cycle in low-income and middle-income countries. *The Lancet* 2011; **378**(9801): 1502-14.
184. Fernald L, Hamad R, Karlan D, Ozer E, Zinman J. Small individual loans and mental health: a randomized controlled trial among South African adults. *BMC Public Health* 2008; **8**: 409-23.
185. Lund C. Poverty and mental health: Towards a research agenda for low and middle-income countries. Commentary on Tampubolon and Hanandita (2014). *Soc Sci Med* 2014.
186. Medina-Mora ME., Montiero M., Room R., et al. Alcohol Use and Alcohol Use Disorders. In: , editors. 2015. Mental, Neurological, and Substance Use Disorders. In: Patel V, Chisholm D., Dua T., Laxminarayan R., Medina-Mora M.E., eds. Disease Control Priorities, Third Edition, Volume 4. Washington DC: World Bank; 2015: 127-43.
187. Patel V, Chatterji S. Integrating Mental Health In Care For Noncommunicable Diseases: An Imperative For Person-Centered Care. *Health Affairs* 2015; **34**(9): 1498-505.
188. GBD 2015 Mortality and Causes of Death Collaborators. Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet* 2016; **388**(10053): 1459-544.
189. Liu NH, Daumit GL, Dua T, et al. Excess mortality in persons with severe mental disorders: a multilevel intervention framework and priorities for clinical practice, policy and research agendas. *World Psychiatry* 2017; **16**(1): 30-40.
190. Archer J, Bower P, Gilbody S, et al. Collaborative care for depression and anxiety problems. *Cochrane Database Syst Rev* 2012; **10**: CD006525.
191. Patel V, Belkin G, Chockalingam A, Cooper J, Shekhar S, Unutzer J. Grand challenges: integrating mental health services into priority health care platforms. *PLoS medicine* 2013; **10**(5): e1001448.
192. Fairall L, Bateman E, Cornick R, et al. Innovating to improve primary care in less developed countries: towards a global model. *BMJ Innov* 2015; **1**(4): 196-203.
193. Semrau M, Evans-Lacko S, Alem A, et al. Strengthening mental health systems in low- and middle-income countries: the Emerald programme. *BMC Med* 2015; **13**: 79.

194. Lund C, Tomlinson M, De Silva M, et al. PRIME: a programme to reduce the treatment gap for mental disorders in five low- and middle-income countries. *PLoS medicine* 2012; **9**(12): e1001359.
195. World Health Organization. Global Strategy and Action Plan on Ageing and Health (2016-2020): WHO; 2016.
196. Prince MJ, Wu F, Guo Y, et al. The burden of disease in older people and implications for health policy and practice. *The Lancet* 2015; **385**(9967): 549-62.
197. Lapiere S, Erlangsen A, Waern M, et al. A systematic review of elderly suicide prevention programs. *Crisis* 2011; **32**(2): 88-98.
198. Prince M, Albanese E, Guerchet M, Prina M. World Alzheimer Report 2014. Dementia and Risk Reduction. An analysis of Protective and Modifiable Risk Factors. London: Alzheimer's Disease International; 2014.
199. Livingston G, Sommerlad A, Orgeta V, et al. Dementia prevention, intervention, and care. *The Lancet* 2017; **390**(10113): 2673-734.
200. Prince M, Ali GC, Guerchet M, Prina AM, Albanese E, Wu YT. Recent global trends in the prevalence and incidence of dementia, and survival with dementia. *Alzheimers Res Ther* 2016; **8**(1): 23.
201. World Health Organization. Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity. Geneva: World Health Organization, 2017.
202. Orgeta V, Brede J, Livingston G. Behavioural activation for depression in older people: systematic review and meta-analysis. *Br J Psychiatry* 2017: bjp.bp.117.205021.
203. Prince M, Comas-Herrera A, Knapp M, Guerchet M, Karagiannidou M. World Alzheimer Report 2016. Improving healthcare for people with dementia - Coverage, Quality and Costs, Now and in the Future. London: Alzheimer's Disease International, 2016.
204. World Health Organisation. iSupport For Dementia. 2018: [Cited 22 Apr 2018]. Available from: <https://www.isupportfordementia.org/en>.
205. Inter-Agency Standing Committee (IASC). IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings. Geneva: IASC; 2007.
206. The Sphere Project. Humanitarian Charter and Minimum Standards in Humanitarian Response. 2018. <http://www.sphereproject.org/> (accessed 04 Apr 2018).
207. Derr AS. Mental Health Service Use Among Immigrants in the United States: A Systematic Review. *Psychiatric services (Washington, DC)* 2016; **67**(3): 265-74.
208. Lopes AP, Macedo TF, Coutinho ESF, Figueira I, Ventura PR. Systematic Review of the Efficacy of Cognitive-Behavior Therapy Related Treatments for Victims of Natural Disasters: A Worldwide Problem. *PLOS ONE* 2014; **9**(10): e109013.
209. Rahman A, Hamdani SU, Awan NA, et al. Effect of a Multicomponent Behavioral Intervention in Adults Impaired by Psychological Distress in a Conflict-Affected Area of Pakistan: A Randomized Clinical Trial. *Jama* 2016; **316**(24): 2609-17.
210. Thornicroft G, Deb T, Henderson C. Community mental health care worldwide: current status and further developments. *World Psychiatry* 2016; **15**(3): 276-86.
211. Knapp M, Beecham J, McDaid D, Matosevic T, Smith M. The economic consequences of deinstitutionalisation of mental health services: lessons from a systematic review of European experience. *Health Soc Care Community* 2011; **19**(2): 113-25.
212. Krupchanka D, Winkler P. State of mental healthcare systems in Eastern Europe: do we really understand what is going on? *BJPsych international* 2016; **13**(4): 96-9.
213. Treatment Advocacy Center. Serious Mental Illness Prevalence in Jails and Prisons. 2018: [Cited 20 Apr 2018]. Available from: <http://www.treatmentadvocacycenter.org/evidence-and-research/learn-more-about/3695>.
214. Walker J, Illingworth C, Canning A, et al. Changes in mental state associated with prison environments: a systematic review. *Acta Psychiatr Scand* 2014; **129**(6): 427-36.
215. Shaw J, Conover S, Herman D, et al. Critical time Intervention for Severely mentally ill Prisoners (CrISP): a randomised controlled trial. Southampton (UK): NIHR Monograph; 2017.

216. Ibrahim A, Esena RK, Aikins M, O'Keefe AM, McKay MM. Assessment of mental distress among prison inmates in Ghana's correctional system: a cross-sectional study using the Kessler Psychological Distress Scale. *Int J Ment Health Syst* 2015; **9**: 17.
217. Winkler P, Barrett B, McCrone P, Csemy L, Janouskova M, Hoschl C. Deinstitutionalised patients, homelessness and imprisonment: systematic review. *Br J Psychiatry* 2016; **208**(5): 421-8.
218. World Health Organisation. WHO Quality Rights Tool Kit. Geneva: World Health Organization; 2012.
219. Tiihonen J, Mittendorfer-Rutz E, Majak M, et al. Real-World Effectiveness of Antipsychotic Treatments in a Nationwide Cohort of 29823 Patients With Schizophrenia. *JAMA Psychiatry* 2017; **74**(7): 686-93.
220. Thornicroft G, Alem A, Antunes Dos Santos R, et al. WPA guidance on steps, obstacles and mistakes to avoid in the implementation of community mental health care. *World Psychiatry* 2010; **9**(2): 67-77.
221. Fazel S, Khosla V, Doll H, Geddes J. The prevalence of mental disorders among the homeless in western countries: systematic review and meta-regression analysis. *PLoS medicine* 2008; **5**(12): e225.
222. Bassuk EL, Richard MK, Tsertsvadze A. The prevalence of mental illness in homeless children: a systematic review and meta-analysis. *J Am Acad Child Adolesc Psychiatry* 2015; **54**(2): 86-96 e2.
223. Aubry T, Nelson G, Tsemberis S. Housing First for People With Severe Mental Illness Who Are Homeless: A Review of the Research and Findings From the At Home-Chez soi Demonstration Project. *Can J Psychiatry* 2015; **60**(11): 467-74.
224. Benston EA. Housing Programs for Homeless Individuals With Mental Illness: Effects on Housing and Mental Health Outcomes. *Psychiatr Serv* 2015; **66**(8): 806-16.
225. Eaton J, Des Roches B, Nwaubani K, Winters L. Mental Health Care for Vulnerable People With Complex Needs in Low-Income Countries: Two Services in West Africa. *Psychiatr Serv* 2015; **66**(10): 1015-7.
226. United Nations. Right of everyone to the enjoyment of the highest attainable standard of physical and mental health - Resolution 6/29. Human Right Council, United Nations, 2007.
227. United Nations. United Nations Convention on the Rights of Persons with Disabilities (UNCPRD). New York: United Nations, 2006.
228. Lancet Global Mental Health Group. Scale up services for mental disorders: a call for action. *The Lancet* 2007; **370**(9594): 1241-52.
229. Mental Health Innovation Network. Chain-Free Pasung Program. 2017: [Cited 07 Oct 2017]. Available from: <http://www.mhinnovation.net/innovations/chain-free-pasung-program>.
230. International Alliance of Mental Health Research Funders. Fostering Collaboration in Mental Health Research Funding. 2018: [Accessed 31 Mar 2018]. Available from <http://iamhrf.org/>.
231. Porter M, Stern S, Green M. Social progress Index 2017. Social Progress Imperative. 2017. Available from: <http://www.socialprogressimperative.org/>
232. Sustainable Development Solutions Network. SDG Index and Dashboards Report 2017; 2017. Available from: <http://www.sdgindex.org/assets/files/2017/2017-SDG-Index-and-Dashboards-Report--full.pdf>.
233. United Nations Development Programme. Human Development Report 2016: Human Development for Everyone. 2016.
234. World Health Organisation. 2017 Mental Health Atlas. Geneva: World Health Organization, (forthcoming 2018).
235. Prince M, Patel V, Saxena S, et al. No health without mental health. *The Lancet* 2007; **370**: 859-77.
236. Helliwell J, Layard R, Sachs J. World Happiness Report 2016. New York: Sustainable Development Solutions Network, 2016.
237. Diener E, Oishi S, Lucas RE. Personality, culture, and subjective well-being: emotional and cognitive evaluations of life. *Annual review of psychology* 2003; **54**: 403-25.

238. Saxena S, Carlson D, Billington R. The WHO quality of life assessment instrument (WHOQOL-Bref): the importance of its items for cross-cultural research. *Qual Life Res* 2001; **10**(8): 711-21.
239. WHO. Strengthening Mental Health Promotion. Geneva: World Health Organization, 2001.
240. Wilkinson I. Suffering: A sociological introduction. Indianapolis, Indiana: Polity; 2005.
241. Cape Town Declaration: Pan African Network of People with Psychosocial Disabilities, 2011.
242. WHO. WHO QualityRights tool kit: Assessing and improving quality and human rights in mental health and social care facilities. Geneva: WHO; 2012.
243. American Psychological Association. The road to resilience. Washington, DC: American Psychological Association; 2014. Available from: <http://www.apa.org/helpcenter/road-resilience.aspx>.
244. Ahmad FB, Rossen LM, Spencer MR, Warner M, Sutton P. Provisional drug overdose death counts. *National Center for Health Statistics* 2017: Available from: <https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>.
245. McCarthy M. How inappropriate prescribing prompted the opioid addiction ravaging small town America. *BMJ (Clinical research ed)* 2017; **359**: j4730.
246. Walters J. America's opioid crisis: how prescription drugs sparked a national trauma. *The Guardian* 2017: [Cited 12 Dec 2018]. Available from: <https://www.theguardian.com/us-news/7/oct/25/americas-opioid-crisis-how-prescription-drugs-sparked-a-national-trauma>.
247. National Institute on Drug Abuse (NIDA). Opioid Crisis. 2017. [Cited 07 Oct 2017]. Available from: <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-crisis>.
248. Ryan H, Girion L, Glover S. OxyContin goes global — “We’re only just getting started”. *Los Angeles Times*; 2016. Available from: <http://www.latimes.com/projects/la-me-oxycontin-part3/>
249. Bick J, Nelson CA. Early Adverse Experiences and the Developing Brain. *Neuropsychopharmacology* 2016; **41**(1): 177-96.
250. Hair NL, Hanson JL, Wolfe BL, Pollak SD. Association of Child Poverty, Brain Development, and Academic Achievement. *JAMA pediatrics* 2015; **169**(9): 822-9.
251. Hackman DA, Farah MJ, Meaney MJ. Socioeconomic status and the brain: mechanistic insights from human and animal research. *Nature reviews Neuroscience* 2010; **11**(9): 651-9.
252. Foulkes L, Blakemore S-J. Is there heightened sensitivity to social reward in adolescence? *Current Opinion in Neurobiology* 2016; **40**: 81-5.
253. Blakemore S-J, Robbins TW. Decision-making in the adolescent brain. *Nature neuroscience* 2012; **15**(9): 1184-91.
254. Apicella CL, Carré JM, Dreber A. Testosterone and Economic Risk Taking: A Review. *Adaptive Human Behavior and Physiology* 2015; **1**(3): 358-85.
255. Tang Y-Y, Holzel BK, Posner MI. The neuroscience of mindfulness meditation. *Nat Rev Neurosci* 2015; **16**(4): 213-25.
256. da SJ, Goncalves-Pereira M, Xavier M, Mukaetova-Ladinska EB. Affective disorders and risk of developing dementia: systematic review. *Br J Psychiatry* 2013; **202**(3): 177-86.
257. Butters MA, Young JB, Lopez O, et al. Pathways linking late-life depression to persistent cognitive impairment and dementia. *Dialogues Clin Neurosci* 2008; **10**(3): 345-57.
258. Soysal P, Veronese N, Thompson T, et al. Relationship between depression and frailty in older adults: A systematic review and meta-analysis. *Ageing Res Rev* 2017; **36**: 78-87.
259. Boccardi V, Pelini L, Ercolani S, Ruggiero C, Mecocci P. From cellular senescence to Alzheimer's disease: The role of telomere shortening. *Ageing Res Rev* 2015; **22**: 1-8.
260. Bagyinszky E, Giau VV, Shim K, Suk K, An SSA, Kim S. Role of inflammatory molecules in the Alzheimer's disease progression and diagnosis. *J Neurol Sci* 2017; **376**: 242-54.
261. Gurung D, Upadhyaya N, Magar J, Giri NP, Hanlon C, Jordans MJD. Service user and care giver involvement in mental health system strengthening in Nepal: a qualitative study on barriers and facilitating factors. *Int J Ment Health Syst* 2017; **11**: 30.
262. Mendenhall E. Syndemics: a new path for global health research. *Lancet (London, England)* 2017; **389**(10072): 889-91.

263. Levin C, Chisholm D. Cost-Effectiveness and Affordability of Interventions, Policies, and Platforms for the Prevention and Treatment of Mental, Neurological, and Substance Use Disorders. In: Patel V, Chisholm C, Dua T, Laxminarayan R, Medina-Mora ME, eds. Mental, Neurological, and Substance Use Disorders Disease Control Priorities, third edition, volume 4. Washington, DC; 2015.
264. Maggin D, Servili C. Psychosocial interventions, treatment of emotional disorders. Geneva: mhGAP Resource Centre, World Health Organization; 2015.
265. Stockings EA, Degenhardt L, Dobbins T, et al. Preventing depression and anxiety in young people: a review of the joint efficacy of universal, selective and indicated prevention. *Psychol Med* 2016; **46**(1): 11-26.
266. Tan L, Wang MJ, Modini M, et al. Preventing the development of depression at work: a systematic review and meta-analysis of universal interventions in the workplace. *BMC Med* 2014; **12**: 74.
267. Forsman AK, Nordmyr J, Wahlbeck K. Psychosocial interventions for the promotion of mental health and the prevention of depression among older adults. *Health Promot Int* 2011; **26 Suppl 1**: i85-107.
268. Rahman A, Fisher J, Bower P, et al. Interventions for common perinatal mental disorders in women in low- and middle-income countries: a systematic review and meta-analysis. *Bull World Health Organ* 2013; **91**(8): 593-601.
269. Cuijpers P, Karyotaki E, Weitz E, Andersson G, Hollon SD, van Straten A. The effects of psychotherapies for major depression in adults on remission, recovery and improvement: a meta-analysis. *Journal of affective disorders* 2014; **159**: 118-26.
270. Sockol LE, Epperson CN, Barber JP. Preventing postpartum depression: a meta-analytic review. *Clin Psychol Rev* 2013; **33**(8): 1205-17.
271. Linde K, Rucker G, Sigterman K, et al. Comparative effectiveness of psychological treatments for depressive disorders in primary care: network meta-analysis. *BMC Fam Pract* 2015; **16**: 103.
272. Sim K, Lau WK, Sim J, Sum MY, Baldessarini RJ. Prevention of Relapse and Recurrence in Adults with Major Depressive Disorder: Systematic Review and Meta-Analyses of Controlled Trials. *Int J Neuropsychopharmacol* 2015; **19**(2).
273. National Institute for Health and Clinical Excellence. Depression: NICE Clinical Guideline 90. London: National Institute for Health and Clinical Excellence 2009.
274. Chisholm D, Burman-Roy S, Fekadu A, et al. Estimating the cost of implementing district mental healthcare plans in five low- and middle-income countries: the PRIME study. *Br J Psychiatry* 2016; **208 Suppl 56**: s71-8.
275. McGorry P, Keshavan M, Goldstone S, et al. Biomarkers and clinical staging in psychiatry. *World Psychiatry* 2014; **13**(3): 211-23.
276. McGorry P, van Os J. Redeeming diagnosis in psychiatry: timing versus specificity. *The Lancet* 2013; **381**(9863): 343-5.
277. Thornicroft G, Tansella M. The balanced care model: the case for both hospital and community-based mental healthcare (editorial). *The British Journal of Psychiatry* 2012; **201**: 1-3.

EDITORIAL COMMENTS:

1. We strongly agree with reviewer 1's third point about the role of mental health professionals. Rebalancing towards public health approaches is good, but the two needs - clinical capacity and public health capacity - should not be perceived as mutually exclusive, contradictory, or competing.

We absolutely agree that clinical and public health capacity must not be perceived as mutually exclusive and that mental health professionals play an important role in actioning our recommendations, in particular related to the delivery of care for persons with mental disorders. This is exactly aligned with one of the three principles of our 'reframing', i.e. the staged approach which locates promotion and prevention as part of a continuum along with treatment and, therefore, implicitly acknowledges the role of non-health and clinical sectors in global mental health. The balanced care model, a fresh addition to the revised manuscript as one of our four 'innovations' explicitly emphasizes the role of hospital based care, typically led by psychiatrists, in particular for acute care. However, even for treatment, non-specialists already do, and will continue to contribute, the lion's share of the coverage, especially in the least resourced regions of the world (including in China) where there are very few mental health professionals, and where these few professionals are entirely located in metropolitan centres and institutions, and where demand for such specialist care is relatively low. The bottom line is that no country has enough psychiatrists to effectively treat all people with mental disorders (nor does the evidence we present suggest we need psychiatrists to treat all patients, even if there were in sufficient supply). We do fully agree that we must not demonize psychiatrists, but we don't think there is any such intention or wording in the paper. Nevertheless, we have carefully reviewed the entire manuscript and made edits to some of the material related to human rights and deinstitutionalization, as recommended by the reviewers, to ensure we do not convey such a negative message. We have also made more explicit, the clinical and public health roles of mental health specialists including psychiatrists at several places.

2. The editors felt that the new, innovative parts of the Commission are still not clear and need to be brought to the surface better.

We have added a new panel in Section 1 to summarize the innovative aspects of the Commission.

3. The editors also agreed with reviewer 1's second point - what do we need to do differently this time to make sure that the Commission leads to improved global mental health? Why is this reframing of mental health different from previous attempts to reframe global mental health?

We think that our three principles in Section 2 set out clearly how our reframing of mental health is different from the existing scope of global mental health, but have sought to make this clearer in the new panel 3 referred to above in section 1. Essentially, the existing scope is restricted to improving access to care for people with mental disorders, i.e. to reduce the 'treatment gap'. Through the reframing principles, we have broadened our scope to also address the 'prevention gap' and the 'quality gap', and to revise the notion of 'treatment' (which has historically been conflated with clinical/biomedical interventions to also include, where needed, long-term social care (thus, we also refer to the novel term of 'care gap')). These points are also highlighted in the new Panel 3. For example, the convergent and staging principles emphasize actions for prevention, while the human rights principle emphasizes actions for quality and care.

4. We are missing a section on next steps and more on how actions of the Commission might be measured.

We believe that these have already been articulated in the new Tables 1-4 in Section 4. We have also now added more material on how the actions of the Commission itself might be measured. These include citations of the Commission in national and international policy documents, attributions of the work of the Commission to key policy or funding commitments, citations in academic research literature and influence on research agendas and funding.

5. We appreciate your cutting of the text and would be grateful if you could take another look at the references and try to trim to the limit of 250 if possible.

We have cut 81 references leaving 277 in the revised submission and hope this is acceptable.

6. We were not keen on figure 1. Rather than showing images of publications, we felt that a timeline or schematic showing how priorities or thinking have shifted over time would be more useful.

We have now revised Figure 1 to a schematic timeline showing how priorities and thinking about Global Mental Health have changed over time.

COMMENTS TO THE AUTHOR:

Reviewer #1: This remains a VERY long report. Hopefully the people who need to will, at least, read the executive summary. I'm wondering who will wade through the entire document.

The revisions have adequately addressed my first major concern, which related to the promotion of mental health on the background of increasing inequity between and within countries.

My second major concern -- that this report (like the 2007 Call to Action) will result in more policy documents, training initiatives, global consortiums and funding for mental health but result in little actual measurable improvement in global mental health - remains. Simply stating that now we can piggyback our work to the SDG initiative doesn't reassure me. What do we need to do different this time around to actually improve global mental health?

While we agree that there appears to be little measurable change in reducing the burden of mental disorders globally (precisely the rationale for the reframing of mental health and this Commission), there have been substantial developments in new policy commitments, greater global awareness, major new funding initiatives –all signs of important changes in response to global mental health. We cannot expect in the space of 10 years to have shifted the global burden of mental disorders. The emphasis on the care, prevention and quality gaps offers a fresh vision on what ‘we’, the global mental health community (which includes mental health professionals) need to do differently. In Section 4, our new tables (1-4) offer specific examples of actions which are needed, in line with our reframing of mental health. We hope the new panel 3 in Section 1 also spells out more clearly what we need to do which is ‘different’ to improve global mental health.

The authors have partially responded to my third main concern - the downplaying of the central role that psychiatrists and psychiatric hospitals will need to play in the effort. But I'm still not satisfied. I strongly support the public health approach to the promotion of mental health and the management of mental illnesses, but the reality on the ground in the majority of LMICs is that psychiatrists and psychiatric hospitals are effectively THE ONLY STAKEHOLDERS ON THE GROUND. Movement to a more public health, community-based approach will need to be actively supported by these stakeholders rather than being done DESPITE these stakeholders. Much of the effort to move things forward in these countries will be figuring out ways to 'co-opt' them to this revised vision of what

they should be doing and get them to support the active participation of other groups of stakeholders. The Commission says nothing about how we should go about doing this.

We disagree with the contention that psychiatrists are the *only* stakeholders in any country, nor do we take an either-or approach here; we certainly need psychiatrists and psychiatric hospitals, within a balanced care model, and psychiatrists need to join forces with public health community-based practitioners and organisations. We do agree that we must engage this key stakeholder group (and, of course, the co-authorship of the current President of the WPA will hopefully be key to ensuring this when the Commission is launched), and have emphasized this in Section 4.

Re-reading the manuscript I have two other concerns. The rather heavy-handed approach to the human rights issue and the strong push for de-institutionalization may alienate some of the key stakeholders needed to implement the recommendations of the Commission. (I've addressed these in my specific comments below.)

We have responded to this comment below.

My specific comments on the revised manuscript are as follows.

NOTE: None of the supplemental Panels, Tables or Figures were provided in the revised material I received, so I am unable to comment on these.

EXECUTIVE SUMMARY:

1. I remain concerned that, like many countries' mental health plans and like the previous 2007 'call to action', the conclusions and recommendations of this commission are too aspirational. I'd really like to know why global mental health problems have continued to increase since the 2007 call to action and how the recommendations of this commission will be any different.

We are not clear why the reviewer thinks global mental health problems have 'increased' apart from the obvious 'growth' in the populations at risk due to the growing cohort of young adults and older people globally (which we refer to in Section 1). Indeed, as we point out in Section 1, there has been a dramatic increase in the global policy attention and calls for action from diverse stakeholders to address global mental health. Of course, we admit at the outset that treatment gaps have not dramatically reduced, nor is there evidence on reduced burden of mental disorders, and these are the precise motivations for the Commission's recommendations. As one example of what is different in 2018 from 2007 is that there is no question at all today of the effectiveness of task-sharing of psychosocial interventions, and another example is the dramatic emergence of digital platforms to enable a range of delivery strategies. These are precisely the kind of 'different' actions the Commission champions (summarized in the new Panel 3 in section 1).

2. In the list of global challenges directly relevant to mental health I'd include rapid urbanization, natural disasters, and large-scale internal and international migration.

We had already acknowledge all of these in Sections 1 and 2, and have focused specifically on migration and climate change in the (now supplementary) panel on global threats to mental health; we have now added a mention of rapid urbanization in Section 1..

3. Promotion of research is, of course, important. But in many LMICs mental health research rarely has any effect on local mental health services or policies. There needs to be a mechanism for selectively promoting research that has a real chance to improve mental health in these geographies.

We agree and this point is mentioned in the recommendation related to research in section 4. In recent years there have been important examples of research that has directly influenced local mental health services and policies in LMICs, and we have now added as examples the PRIME and Emerald research programmes (in Section 3).

4. There appears to be little awareness of the different political environments in which mental health needs to be promoted. The liberal, 'civil society' bottom-up approach with heavy involvement of NGOs that appears to be the default position assumed by the Commission is not acceptable to authoritarian top-down governments (which have become more numerous in recent decades). If we want governments in these countries to actively promote the commissions' recommendations, it will need to be less critical of top-down approaches and less rigid about the need for community activism, the key role of NGOs and user community participation in the policy process.

We do not recognize this perception of a 'liberal, civil society, bottom up approach' being the only approach we promote in this Commission. On the contrary, our third recommendation specifically emphasizes that "inter-sectoral actions must be led by the country's top leadership" (and this position is further emphasized in Section 4). However, we are also clear that such top-down authoritarian roles which have typified global mental health action to date (with, as the reviewer has noted, limited impacts) must now be moderated with a strong engagement of civil society, in particular persons with the lived experience of mental disorders. We had previously mentioned humanitarian emergencies in discussion of the social determinants of mental health, and have now added the importance of considering contextual political environments, in Section 2.

SECTION 1: THE JOURNEY SO FAR:

1. In terms of the 'reframing' the goals of Global Mental Health, I think that the 4th objective about considering mental health a 'human right' has always been part of the Global Mental Health agenda, so I don't consider it a 'reframing'.

We agree, and indeed the perspective of human rights of persons with mental disorders is captured in Section 1 which is a historical overview of the field. However, the reframing (in Section 2) refers, additionally, to the conceptualization of mental health as human right in itself which is, as far as we know, a novel and aspirational proposal.

2. The problem with expanding the scope from dichotomous disorders to continuous levels of psychological symptoms and from treatment to prevention is, of course, an important developmental direction; but in many settings that haven't yet provided basic treatments for serious specific disorders, the expenditure of limited resources to adopt such a holistic approach may not be feasible or appropriate.

We agree with this comment but clarify that we are not calling for scarce clinical resources to be allocated to milder symptom severities; on the other hand, by acknowledging the opportunity to address milder severities through non-professional approaches, we can reduce the burden on already stretched clinical services.

3. Page 12 5th paragraph. I thought the first GBD report was in 1996 NOT 1993.

Thank you for pointing out this error which we have now corrected.

4. Investments in mental health section.

This section is both incorrect about the time of the building of mental health hospitals ('mostly build during the colonial period') and overly negative about the role of mental health hospitals ('primarily

performing a custodial function'). Perhaps this represents the situation in India but it most certainly doesn't not represent the situation in China or in most parts of the world. There remain many primarily custodial psychiatric hospitals but most of the patients in the 700+ psychiatric hospitals in China have acute-care treatment (2-weeks to 2 months), the hospitals provide active outpatient services, and most hospitals also have some responsibility (admittedly not well implemented) to provide community-based services. This is not to say that a higher proportion of funding shouldn't be spent on community-based services, but it unjustly (and counterproductively) demonizes psychiatric hospitals (and the psychiatrists and mental health administrators who work there) as 'the enemy'. In most locations these are the very people that need to be active supporters of the mental health promotion effort, so alienating them is counter-productive.

We agree and have corrected our assertion about the colonial history of these hospitals and have also moderated the text to remove this term and any insinuation which might be perceived as 'demonizing' those who work in these institutions. We also emphasise, both here and elsewhere in the report, the important role of psychiatrists within a whole integrated system of care.

5. The drop in suicide rates is parallel to the overall global improvement in health. I definitely do not agree with the statement that the drop in suicide rates is "most likely attributable to a public health approach towards addressing the risk factors for suicidal behaviour." (top of page 11). There is no evidence to support such a statement. The reference provided (17) simply provides the data on the numerical drop and says nothing about the cause of this drop.

We agree, and have deleted this sentence and instead inserted the point that the exact reasons for this reduction remain unclear.

6. Some of the rapid social changes may have positive as well as negative benefits for mental health. For example, the very rapid urbanization in many upper-middle income countries means that a substantial proportion of the population that previously had no access to mental health services may now have access to mental health services.

We agree and our existing text already states that some of the changes, such as the reduction in absolute poverty, may have salutary effects for population mental health.

7. The transition from the 5 threats to the 3 factors that limit implementing scientific findings is a bit confusing. Perhaps 'Failure to Implement Scientific Findings' could be the 6th 'threat', and the 3 reasons for this could be included as reasons (a), (b), and (c) within the same paragraph.

We agree and have made this significant revision to this text.

8. The following section on Page 13 is duplicative: "2) promoting the use of innovative opportunities to leap-frog barriers to enhancing the coverage of interventions such as task-sharing of psychosocial interventions to non-specialised workers and leveraging digital technologies to promoting the use of innovative approaches to enhance intervention coverage, such as task-sharing the delivery of psychosocial interventions and leveraging digital technologies to promote self-care and coordinate care across platforms of delivery from the community to specialist care."

We thank the reviewer for spotting this typo which we have now rectified.

9. Aspirations and Reality. I agree that the passage of mental health policies in a variety of LMICs following the 2007 report is, on the face of it, a good thing. But in most cases the aspirational statements incorporated into national mental health laws and plans in LMICs will not actually be

enacted. This needs to be acknowledged by the authors; these documents indicate the intention to act, but are not the same as actually acting to improve mental health

We agree, and this is why we recognize these developments as welcome but insufficient to achieve the goals of improving mental health and, thus, the Commission recommendations.

SECTION 2: REFRAMING MENTAL HEALTH

1. How does the staging approach to mental health conditions parallel the work of the MHGap program?

It is important to clarify that the staging approach and mhGAP are not contradictory. Indeed the latest revision of the mhGAP Intervention Guide v2.0 has shifted the emphasis from a categorical diagnostic approach to a signs and symptoms approach to management of common primary care conditions, for example with the inclusion of the management of anxiety and stress conditions. Furthermore within the broad mhGAP programme, a number of evidence-based psychological therapies have now been introduced, which specifically target transdiagnostic psychological distress, for example through Problem Management Plus.

2. I like the multi-dimensional method of classifying mental health problems and the interaction of the mental health agenda with the other SDGs. However, very few governments have the capacity to undertake such a holistic approach to mental health (or any other problems). Educating the wide range of stakeholders that would need to coordinate their efforts to implement such an approach is, I believe, effectively impossible.

We acknowledge that very few governments have the current capacity to undertake a holistic approach that links the SDGs with the mental health agenda, yet we believe that it is essential that we begin to move in this direction. The political will and resources that are being mobilised by the adoption of the SDGs provide us with a unique historical opportunity. In a sense this goes to the heart of the novel approach we are attempting to convey in this Commission, namely that the mental health agenda must be broadened to address the social determinants of mental health and adopt a life course approach that can substantially prevent mental disorders, provide early treatment and reduce the global burden of disease attributable to these disorders. We do not believe that we can continue with an agenda that focuses solely on providing treatment services. And neither do we believe that this expanded approach is impossible.

3. The tendency of the some human rights advocates and the CRPD (which equates psychiatric hospitalization with torture) to demonize psychiatrists and psychiatric hospitals could alienate essential stakeholders in the effort to improve community mental health. There are, moreover, legitimate concerns about applying the individual-based CRPD human rights approach in collectivist cultures (in Asia) where there are long-standing cultural expectations families to take responsibility for the health care decisions of family members with any type of serious illness (including mental illnesses). There are certainly human rights abuse that happen to the mentally ill that need to be addressed, but the reasons for such abuses are complex, involving cultural, social, economic, and political factors. The report leaves the sense that abuse is the norm rather than the exception. Many countries are struggling to find the right balance between care and control of persons with severe mental illnesses—strategies that are both feasible and acceptable in their communities. Blaming these countries for their failure to change community attitudes (how easy is that to do?), for not punishing bad actors more actively (how easy is it to identify them?) or by implying that their failure to provide comprehensive community-based mental health services show how insensitive they are to the human rights of their citizens (when they barely have resources to provide ANY services) will potentially make them less willing to support the many other recommendations of the Commission.

I'd recommend that the report tone down the critical tone a bit and, rather, focus on how to potentially overcome the difficulties countries have in dealing with human rights abuses of the mentally ill - abuses that are usually tolerated because of the long-standing, culturally-supported negative attitudes about mental illnesses among community members.

Thank you for this comment, which we agree with. We have now revised Section 2 to adopt a more balanced position, noting this criticism of the CRPD and promoting dialogue between CRPD advocates and people working in low and middle-income countries, particularly in collectivist cultures. The key point that we have emphasised is the need to advocate for scaling up and investment in rights-based respectful mental health services, using a balanced care model, which includes the need for some specialist psychiatric hospitals, but much more investment in community-based care. We have also emphasised the need to address both the quality as well as the quantity of care. There is still a need for some hospital beds (esp acute beds in most settings) so we are not saying close all beds or all hospitals but do reintegrate many people in institutions who do not need to be there, and for people who do need high support settings such as hospitals, their human rights should be protected and promoted.

SECTION 3: INTERVENTIONS FOR MENTAL HEALTH

1. Preference of psychosocial vs pharmacological therapy by persons with psychological problems. My experience in China is the exact opposite. In multiple studies where I gave persons with mild to severe depression the option, virtually all respondents who were willing to consider any treatment wanted the pills, primarily because of the convenience and the perception that 'talking doesn't work'. I'm concerned that the meta-analysis about preference for psychosocial treatments you cite (reference 161) is primarily focused on high-income countries.

We tend to agree with these comments. There are large variations across countries in which types of treatment have salience/preference from many members of the population and patients. At the same time the evidence needs to be clearly borne in mind. So, in any particular country a balance needs to be struck between evidence-based interventions, and those interventions which are culturally-appropriate and acceptable in deciding treatment and care investments.

2. Long-term residential community-based care. My experience is that such institutions are understaffed (if they have any qualified staff at all) and rapidly become warehousing facilities for families who can afford the cost and want to be relieved of the burden of the mentally ill family member. In China the quality of care provided in such community-based institutions is much lower than that provided in the chronic care wards of government-run urban psychiatric hospitals where the staff is better trained and the basic quality of services is monitored by government agencies. The potential 'benefit' of having the institution in the community -- facilitating better 'rehabilitation' -- is usually a sham because once the individual enters the institution he/she never leaves it.

There is much merit in these ideas. Small as well as large institutions can be of bad quality. It follows from this that quality assurance/control mechanism must be put in place that have bite and that services are not provided with cheap/untrained/unsupervised staff. Yet it does not follow that health care facilities are usually better than social care or other facilities. It means assuring the quality of all types of provision ie setting applying and maintaining standards.

3. Multi-disciplinary teams. In China I have tried for more than 30 years to promote the development of health-care aids, psychiatric social workers and other potential providers of mental health services (e.g., enrolling the 'women's cadres' who were previously responsible to monitoring

compliance with the one-child per family law to provide psychosocial support services) in rural communities but, despite substantial funding, this has never moved forward. The entire responsibility for 'mental health services' is on the shoulders of the village doctor who is too busy with a range of other responsibilities to actually take on such a role. This is, I believe, the main stumbling block to moving forward in the rural areas. I'm not sure whether China is unique in this regard, but I think not. Thus the main task is to identify and motivate community members who could fulfill these functions in rural communities, not an easy thing to do given the very rapid changes in rural communities as the country urbanizes.

We agree with the need but also the challenges in putting in place an effective multi-disciplinary team and section 3 presents several examples of how these have been achieved in an innovative way.

4. First sentence last paragraph Page 32. "...that which..." remove one of these words.

Thank you, we have made this change.

5. Page 36, 'Prevention' paragraph. 'Panel 11: HealthWise program in South Africa' is, apparently, Panel S11 not Panel 11, and, thus, not available with the main manuscript.

Thank you, we have made this change.

6. Deinstitutionalization. I'm not at all convinced that the number of psychiatric beds in the world are decreasing as suggested by the authors. The deinstitutionalization movement is largely occurring in HICs (with the exception of Japan), and I'm much less convinced about its overall benefits than the authors appear to be. The authors state "The evidence from deinstitutionalisation in high income countries is unequivocal - where hospital closure programmes have been carried out reasonably well"; I would content that only about half of the countries that have actively promoted de-institutionalization can actually be considered to have done this 'reasonably well', so the overall picture is much less rosy than implied by the authors. In several LMIC countries including China the number of psychiatric beds has risen dramatically in recent decades. Providing good-quality community-based services for persons with severe mental illnesses is certainly a long-term goal that, admittedly, can be delayed by the stop-gap measure of increasing the number of inpatient beds; but assuming that the best way forward for LMIC without the resources to develop the infrastructure needed to provide good-quality community-based services is to precipitously reduce their inpatient psychiatric beds is unrealistic and, potentially, harmful. In the complete absence of any services for the mentally ill - which is the case in many poor countries or poor regions of LMICs - is it reasonable/ethical to suggest the psychiatric hospital beds are unnecessary?

We take issue with this point. In the Commission we do indicate support for deinstitutionalisation for long stay patients, because this is where the evidence lies. But this evidence, as we acknowledge, is mostly from high income countries. If most services in LMICs are in hospitals, we are not saying that they should be closed with no replacement, i.e. we do not suggest disinvestment or degradation. Rather we insist upon the need for improvement of the quality of care in hospitals and

the concurrent investment in the quantitative of care in the community.

There is a clear need now to research the necessary future roles of psychiatric hospitals globally. Indeed we have not painted a rosy picture across HIC, and have specifically addressed the unintended consequences of poorly planned deinstitutionalization, such as the warehousing of patients in prisons in the USA. Regarding LMICs, the few beds in these countries should not be thoughtlessly closed before adequate quality community services are developed (to avoid the kinds of tragedies in South Africa which we refer to) and this is part of the complex issues we discuss on investment for a balanced portfolio in each particular country.

SECTION 4: THE WAY FORWARD

1. I broadly support the conclusions in this section but I remain concerned that, like the recommendations for the 2007 Call to Action, moving from these aspirational goals to practical programs that actually improve community mental health, particularly in the poorest countries, will be limited or non-existent.

We appreciate that the reviewer broadly supports the conclusions of section 4.

2. I think the Commission has a responsibility to 'call-out' the low quality of data in the WHO Mental Health Atlas. Like with mortality data, the WHO has a responsibility for committing resources to improving the quality of these data. Using such data to measure progress is, at best, very dubious.

We recognise WHO's Mental Health Atlas as a unique source of comparable information from almost all countries, but also the limitations of this exercise. We have added text to reflect this in key message 7.1 of section 4.

PANELS, FIGURES AND TABLES

Panel 3. China does NOT have a less-restrictive regulatory environment for opioids

We have deleted the phrase "less restrictive regulatory environments".

Panel 6. I don't think the first 3 of these 4 strategies are specific for mental health or originated in mental health.

We have not implied that that these innovative approaches originated in mental health or are specific to it, rather that these elements in many countries are more/better developed than their counterpart physical services.

Figure 2. Need to provide a definition of SDI

We have inserted this at the bottom of the figure .

Figure 3. Need to specify in the title which year these data refer to.

We have specified the year for these data in the title (2016).

None of the supplemental panels, figures, or tables were provided with the revised version of the manuscript I received, so I am not able to comment on these.

Reviewer #2: This revision has been undertaken seriously and thoughtfully by the Editors. I am grateful that they have reflected on and addressed most of my and other reviewers comments, even though they have rejected or disagreed with some of the views expressed by myself and the other reviewers. That is their prerogative in many instances. I think a small number of their responses are not convincing however, such as that enhanced primary care for young people, as spreading as integrated care across a number of HIC jurisdictions, is not feasible in a wider range of resource settings. This is not correct for HICs and MICs although clearly true for LICs. They could recommend that this be done at least in HIC and MIC settings at least wherever feasible. They agreed that high resource settings also existed within at least some MIC settings. The evidence for enhanced primary youth mental health care may not be definitive yet, but neither is the evidence for many of the programs they do advocate for. Re early psychosis programs they could recommend that this be the standard of care if HIC settings in view of the metaanalysis from Correll published last week in JAMA Psychiatry... now there is Cochrane level 1 evidence for this model. It also save money ROI 17:1. Also in the HIV situation when there were new drugs available that modified the course of disease, even though they were expensive, there was international advocacy for this advance to be made as widely available as possible. I think this principle should be applied to MH and to all evidence based treatments and models not just EP including ACT and home treatment models. Starting with HICs and in HI settings within MICs. The other issues raised by other reviewers are mostly dealt with well.

We do not think we need to change the text for 3 reasons: first, we could keep updating every day /week on all sections of the commission report- so we need to set limit to updating; second, the use of EI should not be seen not as a single component but as a part of a system, as we say in our report and there is a real risk that if we start recommending some components (eg EI) that this distorts the system as a whole ie in encouraging ei teams where there may be no general provision for 'complex' / 'difficult' patients ie multi- morbid; and third, the paper mentioned has a narrow perspective ie changes only within the EI treatment period. There are a number of studies now not only looking at outcome in the first 2-3 years, but also later. Some of these are very good studies ie randomised discontinuation trials and they are less sanguine and tend to show the EI advantages reduce and sometimes disappear over time.

